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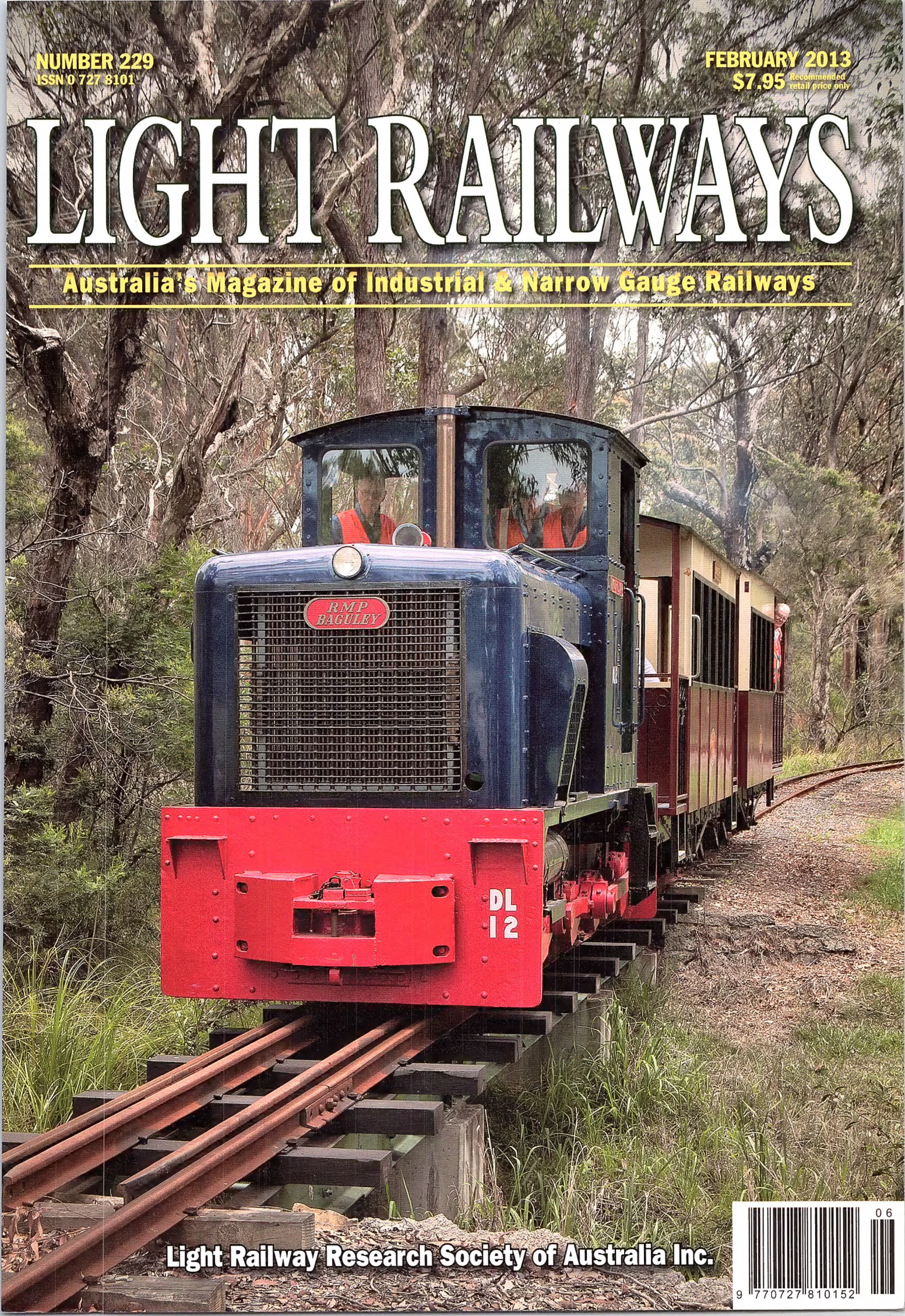
LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways



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Australia's Magazine of Industrial and Narrow Gauge Railways

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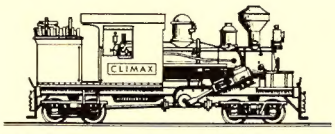

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Imperial to metric conversions:

1 inch (in)	25.4 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
1 mile	1.61 kilometres
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1 gallon	4.546 litres
1 cubic yard	0.765 cubic metres
1 super foot (sawn timber)	0.00236 cubic metre

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Comment

Private owner wagons once abounded in Australia's coal industry, and many of them were hauled over extensive networks of private colliery lines. Many were also hauled over the government railway system as the coal was transported from mine to port, for example in the Hunter Valley district of NSW. In providing the wagons in which their product was hauled, coal owners gained more operational flexibility, for example by obtaining a ready-made way of storing large tonnages of coal at the port that could be used to manage shipping requirements. However, much could go wrong and the management of these wagon fleets caused many headaches. Some of the challenges of these seemingly antique wooden hopper vehicles are delightfully recounted by John Shoebridge in this issue. John's personal and family connections with the coal industry make him an ideal writer on this topic.

The challenge of preserving some of our light railway heritage has been taken up by a number of organisations and individuals. One special example is the Lake Macquarie Light Rail group at Toronto, NSW, operating under the leadership of Grahame 'Swanny' Swanson, operating a 2ft gauge railway on private property. The story of how they preserved and restored one of the Innisfail Tramway's first diesel locomotives forms an invaluable 'how to' guide for others undertaking similar challenges. Our final feature article is another of Rod Milne's popular short pen pictures of cane railway operations.

Congratulations to Scott Gould who has joined the editorial team to develop the Research and Field Reports sections of the magazine. I hope you enjoy the material he has gathered for this issue, which I found to be full of interest, and an encouragement to get out in the fresh air for some 'on the ground' research. *John Browning*

The Light Railway Research Society of Australia Inc. was formed in 1961 and caters for those interested in all facets of industrial, private, tourist and narrow gauge railways in this country and its offshore territories, past and present.

Members are actively involved in researching light railways in libraries and archives, interviewing knowledgeable first-hand participants and undertaking field work at industrial sites and in the forests.

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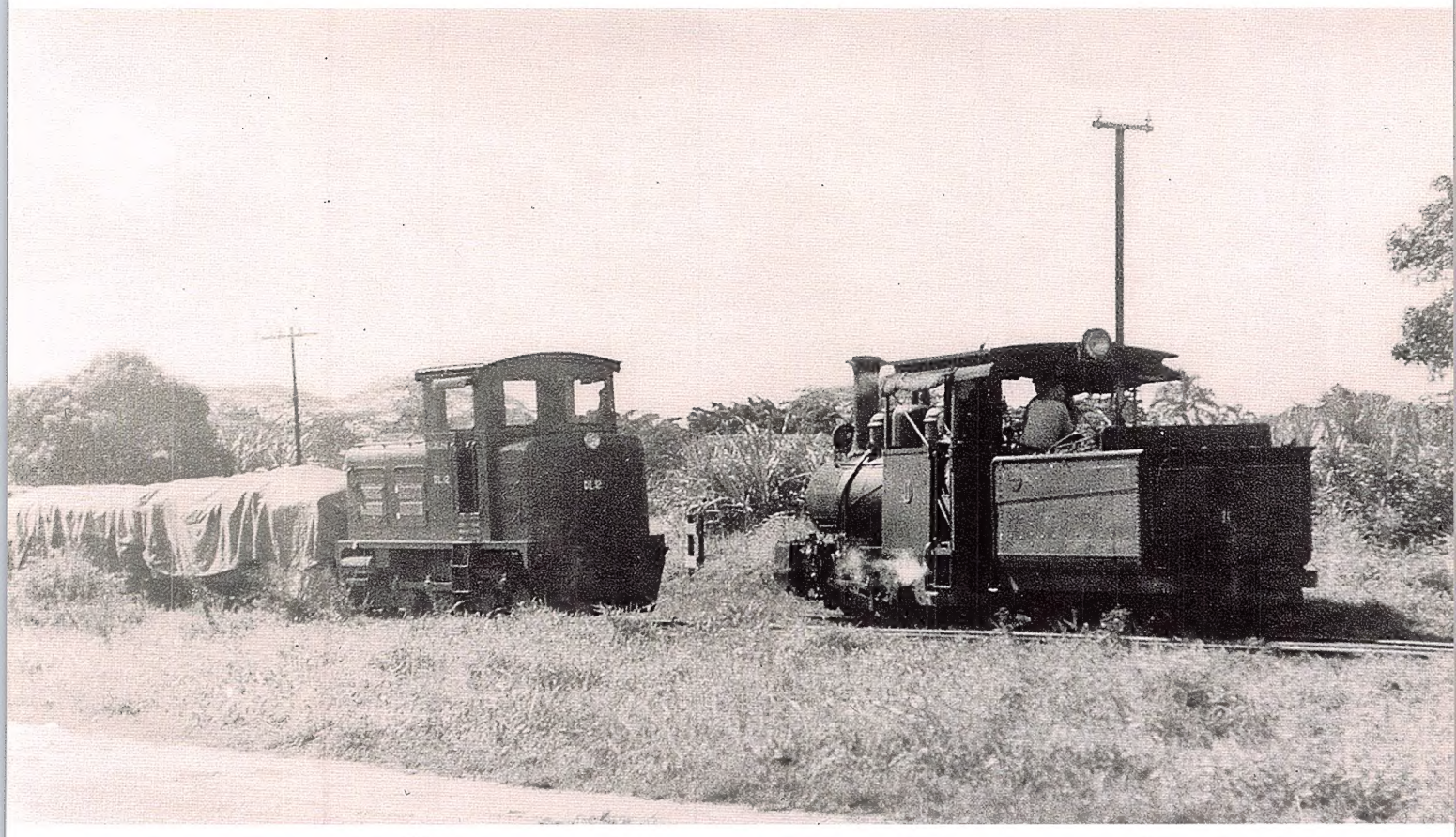
Articles, letters and photographs of historical and current interest are welcome. Contributions should be double spaced if typed or written. Electronic formats accepted in the common standards.

Material is accepted for publication in *Light Railways* on the proviso that the Society has the right to reprint, with acknowledgement, any material published in Light Railways, or include this material in other Society publications.

Front Cover: *Lake Macquarie Light Rail's recently restored Baguley/RMP 0-6-0DM DL12* MOURILYAN *(3390 of 1954) rolls across Bridge No.2 with a two-car passenger train during the ARHSnsw Christmas function on Sunday 2 December 2012. Photo: Chris Walters*



An early photo of DL12 MOURILYAN *hauling bagged sugar on the Innisfail Tramway. The loco is its original condition, still fitted with engine bay door panels. The steam locomotive is Innisfail Tramway's B9½ class 0-6-2 number 11 (John Fowler 17110 of 1926), which was withdrawn from service in June 1963.* *Photo: Ken Rogers, John Browning collection*

Restoring *MOURILYAN*

by Ian McNeil & Grahame Swanson

Introduction

In March 2006, tropical cyclone *Larry* tore into the north Queensland coastal districts around Innisfail, with wind gusts reaching 240 km/hour. There was widespread property damage, and among the casualties was the Mourilyan Sugar Mill, which was seriously damaged. Another casualty was the last of the original ex-Innisfail Tramway diesel locomotives, 2ft gauge *MOURILYAN*, Baguley 0-6-0DM 3390 of 1954, which had been stored out of use at the mill.

Owner Bundaberg Sugar decided not to repair the sugar mill and transferred its operations to nearby South Johnstone Mill. Three years later plans were drawn up to demolish the cyclone-damaged mill buildings. The old Baguley locomotive now faced an uncertain future.

In early 2010 John Browning e-mailed Grahame Swanson, suggesting that Lake Macquarie Light Rail contact Bundaberg Sugar regarding the fate of the loco. In Grahame's own words this is what then transpired:

I received the email from John Browning and made contact with Bundaberg Sugar. After much negotiating and recommendations from other parties, the decision was made to allow LMLR to acquire the loco, thus saving the 'old girl' from the scrapper's torch.

Now Innisfail is 2,219km north of Toronto and at first it did appear that the cost of transport might have been out the reach of our organization. However after logging onto a web site called loadshift.com, quotes came flooding in. Once again by negotiation, I was able to agree to a manageable price with a local Innisfail transport company.

They do a lot of work for the sugar mills and they just happened to be coming to Sydney empty 2 days later. A quick call to a crane company in Cairns had the deal set and the loco was loaded on Thursday 4 February. During the trip, the driver kept me informed on progress and reported many people showed interest everywhere he stopped.

By prior arrangement, a (very) large 60-tonne capacity road crane turned up onsite on Monday morning. The crane has an on-board computer which tells the operator how much weight he can lift at each jib position and extension. So there was some preliminary jockeying around by the semi and the crane until the computer was satisfied that the 18-ton lift was within all safety limits. Then the Baguley was lifted off the truck, swung around, and gently placed on a piece of temporary track with no fuss or bother at all. In fact the lift happened almost too quickly to get good photos of it!

A brief history of *MOURILYAN*

The story of LMLR's new acquisition has its beginnings on the Innisfail Tramway, a 2ft gauge line, formerly known as the Geraldton Shire Tramway. It was built in stages between 1899 and 1902 by the Geraldton Shire Council to link Geraldton (now Innisfail), on the Johnstone River, with Nerada in the hinterland. The Queensland Government took over this line in 1915 as well as the adjacent Mourilyan Harbour line from Mourilyan Mill. For the next 40 years or so a mixed bag of narrow gauge steam locomotives hauled passengers, agricultural produce, timber and especially sugar over the amalgamated system.

In 1954, dieselisation of the line began with the importation of two small Baguley diesel locomotives from England through agents Railway Mine & Plantation Equipment Ltd. LMLR's locomotive was allotted road number DL12 and given the name *MOURILYAN*. Her sister engine, works number 3389 of 1954, DL13, was christened *INNISFAIL*.

DL12 MOURILYAN *at Mourilyan Mill on 15 November 1966. The engine bay door panels have now gone, extra headlights have been added and the tropical Queensland sun has bleached the locomotive's original royal blue paint colour.* *Photo: Weston Langford*

MOURILYAN was a 14½ ton 0-6-0 135hp diesel-mechanical locomotive. A Gardner 8LW engine drove the jackshaft through a Vulcan-Sinclair fluid coupling to an air operated Self Changing Gears R 11A (SCG) epicyclic 4-speed gearbox and a RF25 SCG final drive. The maximum tractive effort developed was 8390lbs and it was rated to haul 220 tonnes. Top speed was 25 km/h, more than adequate for the 20 km/h limit then prevailing on the Innisfail Tramway. At first it had a tendency to derail itself on the light track, so cast steel weights were added for extra stability and these, with the additions added during service, brought the total weight of the locomotive up to 18 tonnes.

For the next 20 or so years the loco's main task was to haul sugar cane to Mourilyan and South Johnstone mills, and export raw sugar from the mills to Mourilyan Harbour. Then in 1977 the Queensland Government sold the Innisfail Tramway to the two mill owners, Howard Smith Industries Pty Ltd and South Johnstone Co-operative Sugar Milling Association Ltd.

South Johnstone Mill acquired *MOURILYAN*, and two other ex-Innisfail Tramway Com-Eng diesel locomotives. It had only recently been rebuilt and fitted with train air brake equipment at Ipswich Workshops in preparation for the 1976 season. South Johnstone Mill removed this equipment as it had decided to put the haulage of bulk sugar onto road transport. Queensland Railways had persisted with mechanical transmissions for nearly 20 years after most mills had moved to torque converters, so the Baguley was already regarded as obsolescent by industry standards. South Johnstone soon relegated the loco to secondary duties such as truck shop shunter, hauling ballast, weed spraying and navvy trains. As more powerful diesel-hydraulic bogie locomotives were acquired, the older diesel-mechanicals were set aside. Following the 2001 takeover of South Johnstone Mill by the Bundaberg Sugar Company, by now the owners of Mourilyan Mill, *MOURILYAN*'s last recorded run was in 2004, on a navvy train to Mourilyan Harbour.

The first look at the Gardner diesel engine

MOURILYAN arrived from Innisfail in a considerably weathered condition having been in the open for a number of years. During this time it took a direct hit from cyclone Larry along with the Mourilyan Mill. Advanced surface rust of the body evidenced the harsh ravages of the tropical climate and with no side panel doors on the engine bay, the engine had also been at the mercy of mother nature. Finding out why the loco had been relegated to the paddock, either through mechanical failure or obsolescence, was the first concern. Grahame takes up the story again:

A Gardner workshop manual was purchased from a company in Brisbane, who incidentally specialise in Gardner engines and parts, all still available. The flywheel was barred over to ensure the engine was not seized. The first sigh of relief - it moved!

A check of the sump. Oil, yes, but indicating water emulsification. Diesel oil can attract water and also the rocker covers are not watertight where the injector pipes enter. Could still be a leaking head gasket; however this could become more evident later. Drained the sump oil over many days then removed the oil filter. The oil filter is of the fine steel mesh type so a detailed inspection of the gunk collected off it indicated heaps of carbon/varnish and 3 tiny specks of metal about the size of a grain of sand, possibly white metal, but no big chunks of metal with part numbers on them, so all clear. Another sigh of relief! Cleaned out the filter housing of more gunk and reassembled. Flushed out the sump, chased with oil, flushed/chased for a week and still gunk was coming out. However as most had now succumbed to the treatment, it was then onto the fuel system.

Emptied the fuel tank of 55 litres of very old diesel oil and cleaned out the tank. Replaced the rubber fuel delivery hose from the shutoff cock to the fuel filter, then removed the fuel filter. Typical fuel matter, gunk, but no water. Yep, another sigh of relief. Getting another fuel filter for the Gardner proved a challenge, however a Newcastle company was able to source an original.

The two injector pumps have a charging lever for each injector and

Left: *In its final guise, as South Johnstone number 10, the former* MOURILYAN *sits out of use at the old Mourilyan Mill site on 3 February 2008. The brake wagon alongside began life as a diesel locomotive from the same builder, Drewry 2396 of 1952, ex-South Johnstone Mill number 14. Photo: Chris Hart*

a test of the system indicated that Nos.4, 7 and 8 injector elements (pistons) were hopelessly frozen. Also the rack was rusted solid, so off came the pumps which were then stripped and 'unfrozen', cleaned and reassembled and replaced on the engine. All injectors then could be charged so new fuel was added and the system purged of air and charged.

Now for the electrics. Although wires seemed to be hanging off everywhere, the important starting/charging circuit was intact. The master battery isolating switch was missing the key, so a knowledgeable LMLR member set about making a replacement. Two new, very large, batteries rated at 950 amps were purchased and connected up. No flashes or blue flames, so yet more sighs of relief.

The cooling radiator proved that it was the only thing that would not hold water; however the leaks were acceptable for testing. The air compressor oil was changed.

After ensuring the diff was locked out and the gearbox could not be activated, 'Contact!' The old Gardner engine gave two coughs then sprang into life, seemingly knowing it had been given a second chance. A large jam tin came sailing down past the cab to remind me to take the cover off the exhaust pipe next time. Some adjustments to idle speed and shutoff linkages, and the old girl settled down to entertain.

Beginning the restoration process

After the acquisition of the locomotive, its historical significance had to be determined which in turn would dictate the scope of the restoration project. As DL12 MOURILYAN *is the only remaining QR 2ft (610mm) gauge Baguley locomotive that operated on the Innisfail Tramway the decision was made to return it to as close to original condition as practical. Given the extensive modifications undertaken whilst in service, this would entail the removal of the raised gusseted roof and replacing the rear sloping bonnet with the original hood profile, removal of the many headlights, and removal of the sliding windows. As the locomotive had been fitted with a larger compressor to supply air for the Westinghouse train brakes the replacement of the side louvre doors was not considered practical.*

All restoration jobs start with stripping things down. That's usually the easy bit, though rusted-solid nuts, bolts and studs do present more of a challenge. Carefully labelling and storing removed parts takes a fair bit more discipline.

And so during the ensuing months *MOURILYAN* was stripped down to an engined-chassis on wheels. The front hood, rear hood and the roofed upper cab section were removed to be separately attended to, also to give better access to the internals. Two sandboxes and a rusted-through battery box also went. Off came the old radiator, oil cooler and 2-stage air compressor as well.

Three tonnes of cast steel weights were jettisoned, to help bring the loco back to its original weight. The original underfloor fuel tank was also removed, being surplus to requirements. Sometime back in QR service a gravity feed tank was installed, and the unused underfloor one had been collecting rust and debris ever since. It caused a bit of excitement because, in spite of being drained and flushed, a thick layer of crud in the bottom still had enough diesel soaked into it to catch fire during the removal operation. It was soon quelled and the offending tank finally removed, though not before putting up a spirited resistance.

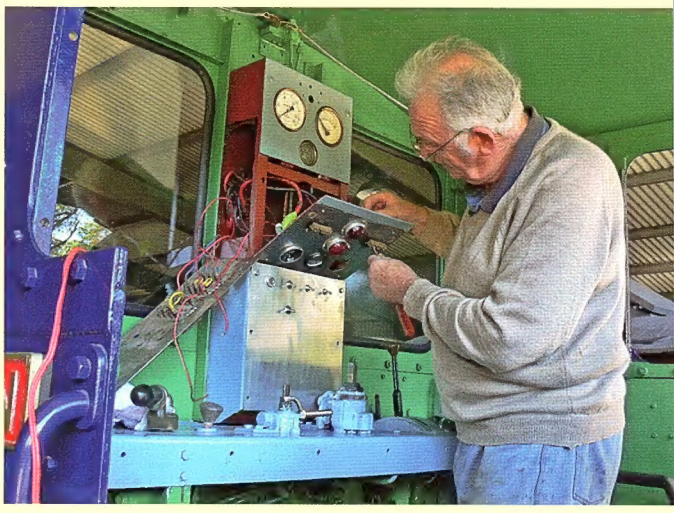
Cab and bodywork overhaul

The tropical north Queensland climate had been particularly severe on the exposed bodywork. Oyster rust had gouged pits of all shapes and sizes in the sheet metal, and expansive rust was busy inside many of the joints, forcing panels and angle brackets apart.

The front hood had to be taken completely apart and each panel, strut and bracket ruthlessly de-rusted. Wasted metal was built up through weld-deposition, though some of the smaller brackets were too far gone to be repaired and replacements had to be fabricated.

Abrasive blasting was used on the cab sections, as well as the loco's chassis, as the best and most effective way of removing rust and layer upon layer of old paint. It certainly is a very effective technique, but it was a bit depressing to afterwards view all the exposed metal that now required repairing, body-filling and sanding back. Hours of patient bogging and sanding ensued.

A very large road crane was called in when the loco arrived at Lake Macquarie Light Rail in February 2010. The crane crew certainly knew their job and the impressive capabilities of their computer-controlled crane. Within 30 minutes they had the diesel loco off the semi-trailer and onto a piece of temporary track. Photo: Ian McNeil



From top left: *The loco newly arrived at Lake Macquarie Light Rail in February 2010. Faded paint and heavily rusted bodywork show that north Queensland tropical climate has not been kind to the locomotive. • The cab interior was in a sorry state when the locomotive arrived. Restoring it back to original condition wa a long and challenging process. • LMLR's 7-tonne backhoe was an indispensable aid during the dismantling process. Here* MOURILYAN*'s front hood unit i lifted clear of the loco's chassis, en route to the workshop where it will be completely rebuilt. • A replacement roof conforming more closely to the original profile wa fitted to the upper cab section. Following the trial fitting shown here, the cab section was grit-blasted to remove decades of paint and rust, repaired, body-filled an primed. •* MOURILYAN*'s 2-stage Westinghouse air compressor as restored. With scored cylinder walls, frozen valves and a heavily rusted interior, it represente a major restoration challenge. For example, it took three days of gentle heating and cooling, and soaking in diesel oil, just to get one of the valves out. • The full restored Gardner radiator. There are 116 individual copper tube risers, each with a copper crush washer soft-soldered on at the bottom to form a seat. The tubes sea into tightly-fitting rubber grommets top and bottom, and it took days to carefully coax each one into place, taking exquisite care not to force the rubber grommets int the cast iron tank housing. • Rewiring the instrument panel inside the loco's cab during the final stages of restoration. The pristine control console is a far cry fro the wrecked interior shown in the photo above. All photos: Ian McNeil*

Dismantling and repair began to give way to restoration and reassembly during 2011. Here the chassis and cab components have been repaired, abrasive grit-blasted, primed and reunited. The overhauled radiator and air compressor have been plumbed up, and a pair of heavy-duty batteries installed. *Photo: Ian McNeil*

To bring the cab roof back close to its heritage outline, the taller QR-added roof was sliced off, and new steel plate formed to shape and welded onto the repaired upper cab section. A new rear hood was fabricated from scratch by a Sydney workshop that specialises in metal forming.

Inside the cab the life-expired wooden floor was scrapped and replaced by a more serviceable steel checker plate one. The control panel was a wreck and required extensive bogging and sanding to bring it back to life. Some of the control levers, gauges, indicator lights and switches were able to be refurbished, while replacements had to be found for others beyond repair. The 'modern' sliding windows – with and without glass – were replaced with fixed windows made to the original style.

Restoring the Gardner radiator

When the Gardner diesel engine was first tested, the radiator was the only component of the cooling system that did not hold water. It was a genuine Gardner original which Grahame wanted to retain:

The radiator core consisted of individual fin cores held in and sealed at each end by rubber grommets. The ravages of time had taken their toll with most of the grommets rock hard and the fins on each riser falling off. Investigations found that the fins were available in West Australia at a cost of $30.00 plus GST each. As there are 116 core risers, that would come to $3800 plus freight. The grommets, also available from WA were $2.30 each, and of course were needed both top and bottom so 232 were required. Installation of the fin risers by a specialised industrial radiator repairer brought the total repair to an incredible sum, quite out of the reach of our resources, so an alternative had to be found.

My first consideration was to maintain the Gardner radiator in its original configuration so the original fins could be replaced if a Lotto win was imminent. Next priority was its ability to efficiently cool the engine. Taking into consideration the light loads and the relatively short duration of the operations, it was felt the engine would rarely get up to operating temp anyhow. As the risers are ½inch OD, and remembering that in the early days trucks and buses only had risers without fins, I concluded that I had nothing to lose by going back to that design.

Both top and bottom tanks are cast iron and the sides, also cast, are bolted to the tanks. After disposing of all the old fins, the tanks were cleaned and all the old hardened rubber grommets were scraped away. All the components were abrasive blasted and painted, firstly with metal primer then with grey enamel, a colour similar to the Gardner grey of the engine.

Before assembly, all the grommets had to be installed, firstly by inserting into the tanks then hitting home with a mallet, taking care not to cut them in the process. The grommets could not be installed with any form of lubricant as this would invite them to be pushed into the tank when the risers were being installed. They had to be a tight fit. Next, eight lengths of drawn copper tube were purchased and the task of then cutting them very accurately to length was done with the aid of a jig. Then the ends had to be de-burred and chamfered to assist in the installation. The original fins had a swage on the bottom to ensure they did not drop into the tank so another jig was manufactured and copper crush washers were purchased and a die made to enlarge them to just fit over the copper pipe. The jig allowed for a very accurately located washer which was then soft soldered onto the tube after detailed preparation.

After the tanks were reassembled then the task of installing the risers began. A pair of vice-grips was modified to enable the tubes to be held without damage. Then with a liberal coating of rubber grease the risers were offered up to the top grommet and with a number of twisting motions the riser slipped into the top tank sufficiently to allow the bottom of the tube to be aligned, then with the same twisting motion the riser was settled into the bottom grommet until hard up against the washer. I can assure you that it was not as easy as it sounds. Some put up a gallant fight before succumbing to the language. Days went past performing this ritual until a volunteer made the comment that he would like to see them being installed. Big mistake, as the volunteer ended up cleaning up and checking each for any damage prior to installation.

I can now understand why the radiator mob wanted to charge me $10,500 plus for the job! The actual costs to LMLR were $1265, but the labour time ran into weeks!

Rebuilding the two-stage air compressor

The air compressor delivers compressed air to operate the locomotive's air brake system and the epicyclic gearbox. In QR service on the Innisfail tramway it also supplied air for the Westinghouse train brakes, although these were removed when South Johnstone Mill took over in 1976. Repairing the compressor cost Grahame many long hours in the workshop:

Basically it is a 2-stage compressor with 5 inch and 2½ inch diameter cylinders that pressurise two main air reservoirs plus an auxiliary reservoir to between 105 and 125 psi. It is the original 1950s Model 3VC compressor made in America by Westinghouse for the LeRoi company.

When we got the loco, the compressor was, frankly, totally stuffed! Water had been allowed to sit inside for a very long time, rusting the insides up and freezing the valves in their seats. The cylinder walls were badly scored and worn, indicating that it had had a very hard life. Repairing this essential piece of equipment turned out to be quite a job. Recovering the worn and damaged components presented a challenge as acquiring replacements, even if they were available, would be time consuming and costly.

The first task was to completely strip it down to the last nut and bolt, not an easy task, as for example one of the valves took 3 days to get out. Repeated gentle heating and cooling along with soaking in diesel finally won over the stubborn components. Many hours were spent on the internet and then on the phone to America to source spare parts and a complete workshop manual for the compressor. It turned out that the LeRoi company, now known as Dresser LeRoi, is still in business and could offer a tone-up kit (gaskets, rings, gudgeon bushes, unloading valves, O-rings and felts) all for the 'bargain price' of $US1,700. A few more hours on the internet found an identical after-market kit for $US197. Enough said.

With the compressor stripped down to a large collection of parts, the precision job of restoring each piece back to original condition began. Some small components aren't made any more, for example 1954-vintage 7/32 inch Whitworth Screws, so these had to be manufactured on the workshop lathe. As the main bearings are tapered roller bearings, the new bearings had to be reshimmed back to original clearances. The scored and worn cylinder walls were honed and the scored main bearing journal resurfaced.

Left: *Spray painting the royal blue top coat was undertaken on site. The original colour was able to be recovered from paint preserved under layers of subsequent coats inside the cab. Photo: Ed Boards* ***Right:*** *One of the last components to be reinstalled was an original-profile rear hood fabricated by a Sydney firm specialising in sheet metal bending. This replaced the cut-down hood installed during the latter days of QR ownership in Queensland. Photo: Ian McNeil*

The compressor governor was also scrap value with the prospect of having to remanufacture parts. However some investigative 'googling' revealed the governor to be a common garden variety type fitted to nearly every truck in Australia, total cost for a new one $35. Sometimes you can have a win. After repairing the adjustable compressor mount pedestal, the rest of the assembly presented no unforseen difficulties. The compressor was reinstalled and after running in is now performing beautifully.

Recommissioning the braking system

When the loco arrived at LMLR it was quite apparent the air brakes weren't going to work. The handbrake could be wound on with considerable difficulty but that was about it. The two stage air compressor was stuffed and would require a total rebuild. The brake piping along with the majority of the plumbing was rusted through for starters and that was just the visible damage. The good news was that the brake blocks, linkages and main drawbar were in good condition, and the wheels, flanges and treads looked brand-new.

The two heavy cast-steel Westinghouse brake cylinders were wrestled off the loco, and on being stripped down were found to be badly pitted inside. The cylinder walls were honed smooth in the LMLR workshop. An on-line search for replacement leather seals led first to an English firm who quoted £150 each to supply. This was a bit rich for the budget, and with some helpful advice from Mulgrave mill, a Granville (NSW) supplier was tracked down – $25 each, on the shelf but it would take a day or so to get them to Toronto, if that was alright. Was it ever!

The two main air reservoirs charge up to 125psi to operate the air brakes, the epicyclic gear box and the final drive through two independent slide-valve feed valves. As the main reservoirs are classed as pressure vessels they had to be removed, repaired and tested before being reinstalled. The relief safety valve was overhauled and all the reservoir fittings, including the compressor supply hoses, were renewed.

All the rusted-out brake piping was stripped out and renewed. The brake valve inside the cab was OK and didn't require any attention apart from a general clean-up. The Duplex pressure gauge, after being re-calibrated and tested, showed up as still being serviceable. The feed valve in the brake line circuit – it reduces the main reservoir pressure from 125psi to 80psi to operate the brakes – needed overhauling and the valve seat re-lapping.

Re-installing the air-brake system components was a bit more challenging than removing them, especially the heavy brake cylinders. These mount under the running boards, and really need three people to lift and hold in position, line up the mounting holes in the frames and bolt them up. As there is only enough room for two (small) people under there – enough said. Apart from having to fabricate new mounting brackets for the main air reservoirs, and flexible air hoses to the brake cylinders, the remainder of the reassembly went much more smoothly.

Red letter day was 31 August 2011 when *MOURILYAN*'s air brakes were successfully operated under test for the first time at LMLR. A 20psi application was more than enough to slow the loco to smooth stop; 40 psi to a very smart stop, and anything more threatened to lock the wheels.

Overhauling the electrical system

The electrics were pretty much write-offs, what with component failures and much of the wiring frayed and corroded. There were also 50 years of modifications and additions to the original 24 volt system to contend with. For example, a 12 volt supply, for all the extra headlights put on the loco, had been added by centre-tapping off one of the 24 volt batteries. Electrically speaking, not a good idea as it only draws off half of one battery.

Fortunately the loco's massive generator still produced a charge so that became the starting point for the overhaul. First the charging circuit and voltage regulator were repaired. Then a completely new 24 volt bus bar was created, two new 950-amp heavy-duty batteries installed, and much of the old wiring harness replaced. To power the 12 volt services added during mill operations, the battery centre-tapping was replaced by a modern 24/12 volt converter. The big starter motor checked out in good condition and easily turned the

Gardner diesel engine over without complaint. Restoring the remainder of the services was then fairly straightforward, with only minor repairs necessary to the low oil pressure light system and one or two others.

Reassembling the locomotive

Re-assembly of the locomotive began in mid-2011. The repaired cab sections and new cab roof were craned back on and bolted into place. Likewise the 2-stage air compressor, oil cooler and the overhauled Gardner radiator went back on. Over the next couple of months the compressed air system components – twin air reservoirs, epicyclic gearbox, final drive and brake cylinders, were re-connected and tested. The diesel engine was fired up to test the cooling, lubrication and fuel systems.

On 17 August 2011 *MOURILYAN* moved under her own power on test on LMLR rails for the first time. The original air horn was missing but the installation of a single horn from a NSWGR X200 class shunter did the trick. Celebrating the occasion with blasts from this new air horn, it quickly became apparent the horn needed to be muffled to head off future complaints from nearby Toronto residents.

The final touches

No colour photographs of the loco's original colour scheme were found, and ex-mill employee recollections were a bit too vague to rely on. Fortunately, careful forensic work during the restoration process uncovered patches of the original colours preserved under multiple coats of paint. Based on this evidence, the loco's bodywork has been painted royal blue, the cab interior mid green, the instrument console light grey, the chassis is black, and the buffer beams, connecting rods and counterweights are bright red.

New brass name plates were cast for the loco and mounted on the sides of the cab. They feature raised polished brass letters against a red background. A genuine RMP Baguley maker's plate was donated and affixed to the radiator grille.

MOURILYAN in service

It's only fitting that Grahame, who played the lead role in the restoration of *MOURILYAN*, should have the last word:

Although Lake Macquarie Light Rail has small IC locomotives that have served well for the per-way work trains and light shunting, their lack of brute force has ruled out main-line haulage using internal combustion motive power.

The majority of group runs at the railway are those that have been invited and booked well in advance, thus allowing the steam engine roster to be available. We are now finding small clubs and groups are expressing interest in mid-week visits and to have 'heavy metal' available, at the turn of a key, able to haul the heavy consists at short notice, has been very popular.

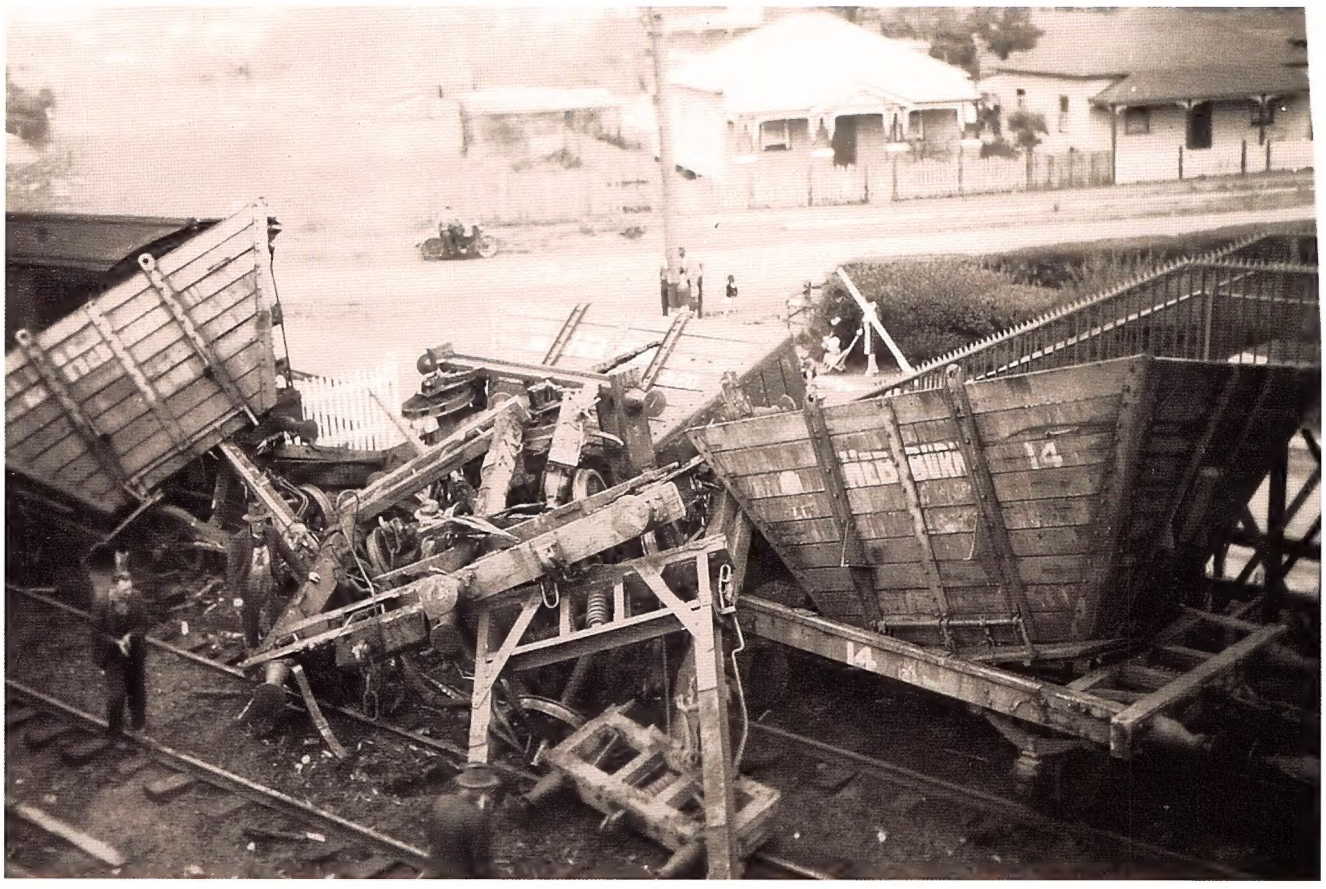
We are finding that the significant heritage of MOURILYAN, *coupled with the impressive 8-cylinder 24-litre Gardner 8LW engine, tends to spark the older generations into a hypnotic trance. The only problem now remaining is to try and get them away from the engine bay and on to the train. And it is not only the gents. It does bring one to appreciate that the total rolling stock tonnage at LMLR, all coupled together, does not offer any form of resistance at all to the low rpm, high torque tractive effort available.*

MOURILYAN *has been a hit with the guests as well as our LMLR group members, who have not only saved the locomotive from the scrapper's torch but have returned it to its former glory, with style.*

Acknowledgements

Lake Macquarie Light Rail wishes to thank the management of Bundaberg Sugar for allowing us to acquire *MOURILYAN* and for their vote of confidence in our ability to restore it. The substantial effort by the members of LMLR is acknowledged, as is the generous help and assistance given by many individuals and organisations to the restoration of this historic locomotive. A special vote of thanks must go to the Mulgrave Mill staff up in North Queensland who were extremely helpful with assistance and advice all the way through the restoration project. They were also able to expedite the location and acquisition of rare workshop manuals and scarce spare parts for the loco.

The restored DL12 MOURILYAN *(Baguley 3390 of 1954) on acceptance trials in October 2012. Restoration of the historic diesel-mechanical locomotive took over 2½ years and involved hundreds of man-hours of effort.* *Photo: Ian McNeil*



'Self Destruction'. Wooden coal hoppers certainly came to grief in a spectacular manner. This is the 1942 accident referred to in the text. The photo, taken from the High Street Station footbridge, Maitland, includes the wreckage of seven Hebburn coal hoppers and a van. Photo: John Parker Collection

Fractures and Failures:
The trials and tribulations of private-owner coal waggons, Newcastle district, NSW

by John W Shoebridge

Introduction

The history of wooden coal hopper waggons in the Newcastle region has been well documented, firstly by Harry Wright in the ARHS *Bulletin* in January 1970 (No.387) and subsequently by Brian Andrews and Jim Webber in the same publication in July-August 1976 (Nos.465-6). The restoration of some of the few survivors has also been described by Graham Black in LR 202. This short article, much of which is based on my own experience, sets out some of the ever-present hazards associated with these private owner vehicles which shared the rails with main-line traffic in the Newcastle-Maitland region of New South Wales.

It concludes with details of two near-misses, one whose aftermath was witnessed by the writer – in reality, probably not a big smash as these thing go, but to a small boy, it appeared so.

Four-wheeled coal hopper waggons

In their day there were thousands of them, plying between 50 or so collieries around Newcastle and Cessnock and the huge marshalling yards at 'The Port' (Port Waratah), whence they were shunted to the ship loading cranes at The Dyke. As well as a means of transport they also provided a mobile stockpile whereby perhaps ten thousand tons of coal could stand ready for immediate shipment and as required be blended in infinite variations. Between East Greta Junction and The Port, these archaic vehicles ran on duplicate, dedicated coal lines but elsewhere they shared much common track with main-line goods, suburban and express trains.

When they were eventually done away with, there were still some that had been running for close on 100 years. Like the proverbial 'butchers knife', little of the original vehicles then remained, but in some few cases it is possible that some axleboxes and wheel sets were approaching that antiquity.

The potential for a serious accident was always present. Over the years there are a number of 'near misses' on record and no doubt an even greater number never came to official attention. That said, I have not found any instance of them being the cause of a fatal or even serious accident involving fare-paying train passengers.

Of the many accidents or failures which could befall a hard-worked and elderly wooden colliery waggon, the following were most prevalent.

Failed couplings - fractured drawbars

Incidents associated with this cause were common, and more often due to rough handling than the load being hauled. Forged ironwork in the form of link couplings and drawbars eventually developed metal fatigue and it was usual for them to be regularly annealed in the smith's fire at the colliery. Regular inspection and routine overhauls reduced fatigue failures and to this end, the larger companies had in place maintenance programs and oil-fired furnaces. Most smaller outfits left it all to the judgment of the colliery engineer. From my experience, failures were far more prevalent in couplings where one end was in the form of a clevis, perhaps just because these were an older design.

Right: *"When I count three.. Jump!" On a routine visit to the cripple roads at The Dyke, Maitland Main Colliery's waggon repairers use their combined weight to reset a distorted trigger bar. Photo: Author*

In connection with this, it is interesting to cite a letter from the Bellbird Colliery correspondence files:

22nd August 1927

South Maitland Railways Limited
Superintendent's Office
West Maitland

Dear Sir
On 20th instant, a Bellbird train consisting of 39 wagons small coal became divided in the Neath-Abermain section, at 5.28 through breakage of a very faulty draw-bar on wagon No.238.
Examination reveals an old flaw and bad crystalisation of remaining metal.
Train delays aggregating 75 mins, including 7 mins to the passenger, resulted.
To enable wagon No.238 to be worked forward to destination, a drawbar from among the wreckage at Abermain is being used to replace the broken one.

Yours faithfully
R St Vincent Heyes
Superintendent

In due course the colliery would be sent a bill, the mine manager meantime being left to ponder why the flawed component had not failed during the climb from Bellbird Junction to Caledonia. After all, the line between Neath and Abermain is virtually flat. The source of the fortuitous wreckage at Abermain remains a mystery, and it is also interesting to note that the South Maitland Railways were prepared to carry out the necessary repairs to the vehicle - this certainly was not the practice in my time.

When a coupling or drawbar failed during the journey, the eventual outcome depended on the skill and vigilance of the guard in bringing the detached portion of the train to a stand with his van brakes. Fortunately, the majority of such incidents took place whilst shunting but when a failure occurred on a loaded train ascending a gradient, (for example on the relief road from Cardiff to Tickhole Tunnel), things were at times somewhat exciting, as the following 1925 account relates:

As the result of sudden snapping of a drawhook connecting 24 loaded coal wagons to the front portion of a coal train proceeding from Cardiff to the marshalling yards at Bullock Island, Newcastle, a serious derailment occurred near the Tickhole Tunnel late last night. The train which consisted of 34 loaded wagons and a brake van was traveling up the grade leading to the tunnel when the coupling suddenly snapped. The rear section of the train was released from the engine and the trucks commenced to run down the line with increasing speed despite the frantic efforts of Murphy, the guard, to bring them to a standstill. After having applied the van brakes as securely as possible, Murphy leaped from the van and running beside the now swiftly moving train, pressed on the brakes of as many wagons as possible. His courageous efforts, however proved unavailing. When they reached the catch points a few hundred yard down the track the wagons were derailed. Fortunately, although they suffered damage, their position when derailed was not such as to block main line traffic. A breakdown gang was quickly on the spot and by 9am today all wreckage had been cleared. Discussing the mishap this afternoon, Mr AC Crow, the northern district superintendent, said that it was a curious coincidence that on Tuesday last week, another colliery train had met with a similar accident in almost identical circumstances. The accident had been brought about by christallisation of the drawgear caused by vibration.

Pulled out headstocks - broken solebars

The timber buffer beams (headstocks) on coal waggons were prone to rot, especially where water penetrated via bolt holes and mortises. Broken headstocks were thus not uncommon, and again the actual breakage was usually provoked by mishandling on the part of the locomotive crew. In most cases the problem was evident by cracks in the main timber before total failure occurred, leaving the following cross-brace to take up the strain. On older waggons the headstocks were at times sandwiched between steel plates to extend their life and from the 1930s onwards, steel sections began to replace the timber on newly built waggons.

Broken side frames (solebars) on the other hand, were generally due to flaws in the original timber or when a pulled-out headstock damaged the ends. In the former case the problem was again generally evident long before the waggon became immobilised.

A vehicle with a broken headstock could usually be nursed a little further, but when solebars failed, it had to be set aside wherever siding space was available. Empty waggons with such damage were regularly collected and worked back to the mine behind the van, using a tail rope if necessary. Loaded trucks on the other hand had to be attended to where they lay. This involved supporting the hopper section on a crib of sleepers whilst the frame was virtually rebuilt around it. Using pre-cut and drilled timbers, such work was usually completed in an amazingly short time, given the necessarily makeshift working conditions.

In some cases, a severe shock could break both headstock and cross-brace. If the truck was loaded, then this was serious indeed. The solebars would spread, allowing the waggon frame to disintegrate. Fortunately such incidents generally occurred with the train virtually stationary.

Broken axles - sheared journals

Axles despite their age, rarely broke, but at times, journals sheared off. Generally this occurred after they had been reduced in diameter to remove score marks from seized brasses, especially if imprudent lathe work permitted stress cracks to develop. Overall, this type of incident was not common, but it was catastrophic when it did occur.

From around 1925 onwards, the strict application of the Government Railway Inspectors' calipers and gauges averted many a potential disaster. Today ultrasonic crack testers and similar devices detect inherent and developed flaws but in past years, safety depended upon the skill, experience and integrity of the inspectors, foremen, waggon repairers and wheel turners.

Left: *"Lineside Makeover (1)" Maitland Main No 661 (on hire from PPW) has been set out at Neath with a pulled-out headstock. Colliery carpenter, Jim Moodie, sizes up the job, which will involve the replacement of both solebars, the headstock and cross brace. Photo: Author*
Right: *"Lineside Makeover (2)" No 661's loaded hopper has been supported on sleepers, and one solebar replaced. Having just unloaded the rest of the precut timber from the utility truck, the gang takes a spell. The Boss snaps his photo and departs, assured the job is well in hand. Photo: Author*

At one time, as manager of Bellbird Colliery, and hard pressed for finances to maintain an ageing waggon fleet, I contemplated the re-use of wheel sets imported around 1880 by South Burwood Colliery, sold to the Hetton Coal Company around 1910, and eventually inherited by Bellbird in 1918. They 'looked all right', and the tyre and journal measurements were within acceptable limits, but prudence prevailed and replacements were sought elsewhere. There must have been over the years, however, many wheelsets in use of a similar age and metallurgy.

Dropped doors

This was a more common happening and similarly to be feared. A 'door down' usually dislodged the hopper from its frame, derailing the vehicle and those following. On conventional coal hoppers, the bottom discharge door hinged downwards, retained shut by three latches forged on a common longitudinal 'trigger bar'. The centre latch was secured by a 'pin' and a safety cotter; hence the term 'pinboss' for the man responsible for releasing the doors during discharge. Twin safety chains were fitted to guard against the failure of the trigger bar and (more importantly) against the latches themselves not being correctly engaged.

Significantly, dropped door incidents were more prevalent on empty trucks, leading to the suspicion that many doors were indeed not correctly secured at the Dyke. It was by no means uncommon to find waggons arriving back at the colliery with the latches undone and the door hanging on the safety links.

Grinding hoppers

Rough shunting at times led to the displacement of a hopper within the frame. Similarly where a loaded vehicle had 'tired' springs, this allowed the wheels to rub on the steel corner straps, especially on curves. There was little risk of derailment, but at times the waggon boards (and then the coal) would catch fire. If promptly detected, a few buckets of water from the engine settled things, otherwise it was necessary to shunt the victim under a water column. Empty hoppers, if incorrectly relocated in the frames by the crane driver, could also foul the wheels. I can recall, on at least two occasions, having to summons the local fire brigade to prevent the complete destruction of a smouldering waggon arriving back at the pit in a train of empties.

At times, to maintain the buffing levels on older vehicles, timber packing strips were fitted between the springs and the frame to compensate for worn tyres and weak springs.

Severe mishandling, such as a collision with buffer stops, could at times, cause the momentum of the load to break the hopper end-boards, a source of exasperation to the mine manager but rarely a safety issue. Steel hoppers as used by BHP Collieries in the Newcastle area, could well stand this and they were readily patched by welding. After a few trials, it was found that the high sulphur content of Greta Seam coals ruled out their use on the South Maitland coalfield.

Hot boxes

Although overheated brass bearings were commonplace, due to the slow speed of coal trains they rarely developed to a dangerous stage. On some occasions the offending vehicle would be set out at the closest siding, but often (especially when empty) they were marked for attention and permitted to continue to the destination. It was not unusual for a train to arrive in the colliery yard with at least one vehicle singing a sad song, trailing blue smoke and smelling abominably of scorched cotton waste.

"Trailing blue smoke and smelling abominably of scorched cotton waste." Near Waratah in December 1972, a J&A Brown hopper waggon appears to have developed a hot box. Photo: Graeme Belbin

Left: *"Saturday Shift". With the advent of the Dyke ship loader, the Railways Department required that all waggon brake levers be on the same side. Here at Maitland Main Colliery, one Saturday in 1969, the two waggon repairers, the carpenter and the shunter, spend an overtime shift turning waggons. One more job to keep the Department at bay. Photo: Author*

On taking over management of Bellbird Colliery, I was somewhat surprised to find that minor items, especially the replacement of axle brasses were attended to, apparently free of charge, by one of the Railway Department's Train Examiners at The Port. At my previous colliery, Maitland Main, it was usual to send our two waggon repairers and a motor vehicle away several days each month to do this work, involving considerable expense and inconvenience.

When I saw the figures for our monthly consumption of waggon brasses, all became clear. Not only was the Examiner permitted to retain and sell the worn bearings, but he made the unchallenged decision which ones should be replaced! However, a moment's thought and a few calculations indicated that the arrangement should continue. All consideration of cost aside, our trucks were back on their way within days, rather than weeks.

Repairs in the workshop

For most coal companies, the waggon fleet was the largest single capital item on their books and its upkeep comprised a major annual cost. As stated by Andrews and Webber (ARHS *Bulletin* 387) this repair work developed into a small subsidiary industry. Most coal companies had the facility to maintain their rolling stock. Some had extensive, well-fitted workshops, but at a small mine it was often just a space on a siding. J&A Brown's waggon works was adjacent to Hexham Engineering on the Hunter River, Caledonian Collieries' works was an ancillary to West Wallsend Extended at Killingworth, Hebburn waggons were maintained at Weston, beside Hebburn No.1 Colliery, and Cessnock Collieries' works was adjacent to Cessnock No2 Colliery at West Cessnock.

To supply the large amounts of good quality sawn timber consumed, some companies also operated their own sawmills, J&A Brown at Paxton beside Stanford Main No.2, Caledonian Collieries at West Wallsend Extended, whilst the original mill at Hebburn No 1 was superseded around 1940 by a diesel plant in the far-off Barrington Tops. Mill logs were sourced from their own pit timber leases, felled and delivered by contract.

At Hebburn Colliery, for many years the responsibility for the rolling stock lay with Tom Smith, the colliery engineer, who had started work as an apprentice fitter at the Sea Pit in Newcastle. It was said that he recorded details of work required on the inside of his grease-soaked and battered hat as he watched the trains pass. If questioned, he removed and consulted the headpiece and invariably came up with an appropriate answer.

In 1939 Tom retired, and my father, at that time the company's chief engineer responsible for Hebburn No.1, Hebburn No.2, Elrington and Metropolitan collieries, also took over the duties of colliery engineer at Hebburn No.1 for the duration of the war. He thus oversaw the day-to-day work in the waggon shops, and the following list (one of the many such entries in his notebook), gives an insight into the running repairs required (as opposed to rebuilds) during one week in January 1942:

479	*Requires 1 x brass, 1 x drawbar, 1 x buffer plunger.*
920	*Deep flanges require turning*
815	*Ditto*
434	*Ditto*
1162	*Both solebars broken & bolts pulled through.*
860	*Deep flanges require turning*
186	*Ditto*
120	*Ditto*
406	*Broken axle box, Repairable*
2221	*Broken axle box, Cannot be repaired. Replace*
2261	*Requires 1 buffer*
628	*Broken solebar*
2239	*Deep flanges require turning*

"Under a water column". On 21 January1975, the water column at Weston is put to good use extinguishing a fire in J&A Brown hopper 3972. Photo: ARHSnsw Railway Resource Centre 9846

"Hebburn No1 Repair Roads". When this photo was taken in 1926, Hebburn Limited still maintained its large waggon fleet under primitive conditions. This was all to change, when a modern, efficient workshop was built. The new complex incorporated an electric gantry, bought second-hand from Cobar, and the mechanism of this unit can be discerned, awaiting reassembly, to the right of the derrick. (See LR No 168, p10).
Photo: AW Shoebridge

Shortly afterwards, in May 1942, a major smash at High Street, Maitland, involving an empty Hebburn train (most likely due to a door down) was the catalyst for change. New waggon overhaul facilities had just been commissioned at Hebburn No.1 Colliery, incorporating an overhead electric crane. Now a card index replaced Tom Smith's trilby. On this, the history of every waggon and the work done on it was entered for permanent reference, also allowing the annealing of drawbars and couplings to be performed at specified intervals.

Repairs beside the line

Although major repairs and those noted as the waggons returned to the colliery were done in the waggon shops, to keep traffic on the move, running repairs were regularly carried out beside the line by colliery employees or contractors.

One such contractor was Mr EP Hill, who operated from a crude workshop near the locomotive roundhouse at Port Waratah. In March 1931, he wrote to the colliery manager at Bellbird detailing the work he had done on their rolling stock in the previous month:

577 Hot box. Packed with waste.
249 Brake spring knocked out. Leaves came asunder. Put them back together and riveted the buckle.
337 The brass was split. I put in a new one and packed it with waste.
57 Could not ship coal on account of pin being burred. I sawed the end off it and had it shipped.
282 En route to Zara Street with small coal. Drawbar broken. Put in a temporary one.
337 New brass and packed .
294 Hot box. Squared up to go back to pit.
221 Buffer broken. I put in a new one which was sent to me from the pit.
812 Three hot boxes. Squared them up.
737 Two hot boxes.
741 Buffer hanging off. Took it off and squared it up.
117 One "W" guard loose. Squared it up. Second "W" guard bent. Took it off, squared it up.
101 "W" guard bent and brass out of place. "W" guard straightened and brass squared
809 Put off at Metford with two hot boxes. I went up, packed the boxes and had the waggon brought in.
176 "W" guard loose. Required new bolts and nuts which I put in.
732 Two hot boxes. Attended to.
37 Two hot boxes. Bad journals. Attended to.
94 On fire on arrival at Port Waratah. due to hopper riding on flange of wheel. Took it to water column and had fire extinguished. Two days later I reported to town office that it was safe to ship.
130 Hot box. Attended to.
823 Hot box. ditto
270 Two hot boxes. ditto.
840 Three hot boxes. Put off at Hexham. I went up and attended to them.
476 Leaves of bearing spring asunder. I riveted them into the buckle.
475 Split brass, scored journal. Put in new brass, filed up journal and packed with waste.
375 Put off at Thornton. Door down on chain. If it had been shifted coal would have been lost. I went up with a man, squared it up and brought the waggon in.
342 Hot box. Attended to.
580 Hot box. Ditto

Skullduggery

From the 1950s onwards, with the rise of petty crime, it was common (especially after the Christmas shutdown), for thieves to target a whole train of empty waggons, lifting the axles with a car jack to remove the bearing brasses. Certain scrap merchants would readily pay cash and keep no records. A personal visit by the colliery manager in company with the local detectives, just before the holidays, did much to alleviate the position.

Left: *"Cessnock Collieries Waggon Shop". This very basic facility at Cessnock No 2 Colliery, appears in the background of this photo, which I took on November 11th 1957, to record the first week's progress in the establishment of Caledonian Collieries', Aberdare No 7 Colliery.*
Photo: Author

The waggons themselves, portable items of considerable value, were at times accepted as security for pecuniary loans between coal companies. Stocktaking the fleet was undertaken by major companies on an occasional basis, usually during the Christmas shutdown, with teams of office clerks sent to roam the Dyke sidings "number taking".

Finally, a quite amazing entry in the Stanford Merthyr waggon register provides evidence that the waggons themselves were by no means immune to illicit abduction :-

'No 18
Maker: Hudson Bros
Steel Hopper & Frame
Oil Boxes, lubricated from above
Note: This is the waggon that went to Greta by mistake and was there painted red like their own, and renumbered 574 and branded "Greta". Alexander Mc Donald discovered it in loaded train of Greta Coal at Hamilton after much difficulty and search. The manager of Greta was Mr Rennie.

Although indignation drips from every word penned, surviving documents provide no record of the outcome.

Door down at Burwood Junction

Over the years many instances of dropped doors were reported, but this incident which took place close to Newcastle station was one which came very close to disaster.

One morning in mid-October 1892 near Newcastle station, just before seven, a train of empty coal trucks destined for Burwood Colliery at Glenrock was proceeding slowly from the main line onto the private branch. Without warning, the door of one of the waggons dropped, throwing the hopper out of the frame and derailing the five following trucks.

With both main lines fouled, and a country mail train heading towards Newcastle Station, only quick action by two alert railwaymen averted disaster. The signalman in Brown Street box threw his levers to danger just as the passenger locomotive coasted past the signal. Glimpsing the movement of the semaphore from the corner of his eye, the driver made an emergency brake application.

Right: *"A Patch in Time". The ad-hoc repairs to their derelict loading bin bear testimony to the threadbare operation of the Hillside Coal Company's mine in the Glebe Valley, Newcastle. In similar vein, the end waggon has had its headstock bolstered by steel plates, and packers put in between the tired springs and the solebar.*
Photo: Brian Andrews Collection

The official version of the event stated that the hopper was fitted with a latch pin of the 'old type' which had worked loose. It also suggested that the safety chain had similarly failed at the crucial moment. The line was cleared by 10am, with the wreckage of two trucks 'in need of major repairs' left beside the track.

Whilst the railway authorities made light of the incident and offered no further comment, subsequent correspondence to the press from passengers in the mail confirmed that it had been a very close run thing indeed, with their engine coming to a halt with its buffers actually touching the wreckage.

Collision at East Maitland

One Friday evening in February 1946, a train of coal empties departed Port Waratah around five. Hauled by a standard goods engine, it traveled on the Down coal-road towards East Greta Junction, destined eventually for Hebburn Colliery at Weston. Opposite the East Maitland signal box, one of the coal hoppers came into sidelong collision with a passing goods train.

The last twelve trucks of the coal train were derailed, piling in a splintered heap. On the goods, the only casualty was the rear vehicle, a bogie guards van. Although it was not derailed there was major damage to its wooden body. One railway employee, an off-duty loco fireman traveling home to Broadmeadow in the passenger compartment, was flung onto the track and suffered serious injuries.

Both guards escaped with a shaking and hurried to protect their trains. The goods train had been diverted onto the Up coal road to permit a passenger train to overtake. This was now approaching, and although the East Maitland signalman had

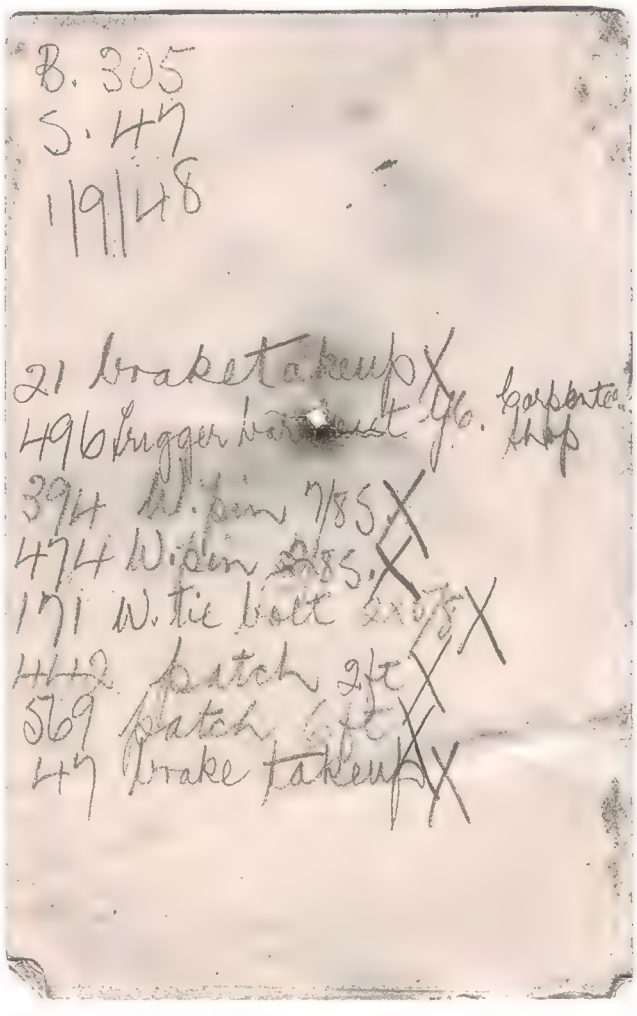
his levers at danger, wreckage on the signal wires caused the semaphores to maintain a clear indication. The prompt effort of the goods guard however, stopped the passenger well clear of the collision site and it was flagged past at a walking pace.

By coincidence, later the same night and nearer to Newcastle a broken drawbar on a loaded coal train allowed seven trucks and the van to run back from the summit of Hanbury Hill near Waratah. The newspaper report states they were derailed on a set of 'trap points', suggesting that they had been diverted onto the Wallsend Coal Company's branch line.

East Maitland aftermath

Mr Nunn, the Railway Traffic Officer responsible for the coal roads, was soon at East Maitland. From the signal box he called out the Port Waratah breakdown gang and the Broadmeadow accident crane, then appraised of the second accident, he sent another gang to Hanbury Junction. By daylight the wreckage of the coal trucks at East Maitland had been cleared from the tracks and piled beside the Down coal road. The van from the goods train was removed on its own wheels to West Maitland, leaving all lines open for traffic.

As owner of the rolling stock involved, Hebburn Colliery was contacted on Monday and advised of the accident. It was indicated that the Railway Department considered that a dropped door had caused the coal trucks to derail, fouling the opposite line. Hebburn would thus be held responsible for the damage to Departmental property, the cost of clearing of the tracks and the removal of the wreckage.



"Paperwork" . The day's job sheet at the Cessnock Collieries repair shop, penciled on the back of a Neath Colliery waggon ticket.
Author's Collection

"Snapped in Twain". As stated, axle fractures were rare. but they did occur. *Photo: Author's Collection*

When this news reached my father, along with the number of the waggon blamed for the accident, he checked the card index of work done on the specific vehicle. This indicated that it had, within the last six months, undergone a complete overhaul; all worn boards had been replaced, the wheels had been re-tyred and the journals turned. New springs had been fitted and the door latch and hinges removed, annealed and replaced, along with the couplings and drawhooks. It was thus most unlikely that the door mechanism or running gear had failed. It would however, have ended up for a time slightly higher that its running mates.

Accident investigation

On Sunday morning the following week, the accident gang had occupation of the coal roads so that the wreckage beside the lines could be loaded onto trucks. Not prepared to accept that his newly repaired waggon was at fault, my father determined to investigate further.

Aged 11, I was taken along and deposited in East Maitland Park where I leaned on the boundary fence and watching in awe as the huge Cravens steam crane dismantled the pile of debris. My father pulled on his work boots. Then in company with a Railway Department Engineer and a Traffic Inspector, he set off to walk back along the line from the crash scene towards Victoria Street. Some hours later, hot and bothered from the walk, Dad returned. They had been as far as Metford and as we drove home, and subsequently at the dinner table, he related his findings and conclusions.

Along the track they had found various items of waggon hardware, including two buffers, a spring, and part of an axle box. A series of marks indicated that something had been seriously amiss as the train approached Victoria Street. Indeed, on one rail a number of fishplate bolts had been sheared off, seemingly by a derailed wheel. At Metford there was a lone Hebburn waggon standing in the brickworks siding. The train register in the signal box confirmed that the train in question had been stopped there whilst this vehicle was set out with a 'hot box'.

Deduction from evidence

From this evidence, the group made the following deductions. As the train was re-united at Metford, the front portion buffed heavily against the standing rear section.

Further up the train, the recently-overhauled empty vehicle, riding high on new springs, over-rode the buffers of the adjacent truck. This was a serious case of buffer-lock, and when the train set off under clear signals the rear portion was drawn, not by the coupling, but by the buffers riding on the headstock of the leading waggon.

Before long the bolts holding the right-hand buffer sheared under the strain and it fell in pieces beside the track. Next, a buffer on the other truck also broke off, allowing the towed waggon to tilt, with the left-side wheel raised clear of the rail and the right-hand wheel dragging on the rail head or digging into the ballast.

Opposite Victoria Street station, one spring fell free and dropped onto the track and the axle box fractured. There is no doubt the guard would have by now been well aware that something was wrong with his train but, perhaps due to the twin brick overbridges, he was apparently unable to attract the attention of the enginemen. With the East Maitland outer home signal showing clear, the train proceeded unchecked to meet the oncoming goods mid-way between Victoria Street and East Maitland stations.

Just beyond this point, marks on the rails indicated that the damaged vehicle had swung to the left then rebounded, just in time to collide with the guards van on the passing train. An examination of the damaged van, stowed in Maitland goods yard, showed that it had not run into wreckage, but had been struck a single blow towards the rear, tearing out part of the side and most of the end, the impact throwing the following coal trucks off the road.

It was all a matter of chance. A second earlier and both trains would have become a massive pile up; a few seconds later they would passed without incident.

Outcome

My father sent a letter setting out the evidence and the conclusions drawn, to the Coal Road Superintendent who accepted the submission and ruled that that the accident had arisen from rough shunting at Metford and the failure of the guard to fully examine his train before proceeding. It is not known if disciplinary proceedings were taken.

With some satisfaction, Mr S McKensey, the Superintendent of Collieries, subsequently reported to the Board of Hebburn Limited that not only would they be relieved of the cost of the accident and clean-up, but that their damaged waggons would be repaired at Honeysuckle Workshops at the Department's expense.

Conclusion

Although today's railway historians often refer to 'non-air' rolling stock (a term never used around the collieries) there will be few persons around who have any idea of the organisation, skill and hard work necessary to keep these anachronistic juggernauts safely on the move.

No doubt after 1978, when they were finally withdrawn from the main lines, some Railway Department officials slept more easily abed - yet for myself, on some still nights, I thrill to the roar of wheels and the clinking of buffers as in my mind, a loaded coal train hammers through Weston.

Acknowledgements

My thanks are due to my fellow railway historians, Brian Andrews and Ross Mainwaring for their assistance, to John Parker for providing a most appropriate photograph, and to my late father for telling me about such things so many years ago.

(Author's note: The old spelling 'waggon' has been used throughout this article. That is how it was spelled in my father's notebooks and in colliery correspondence, and it was the commonly-used version of the word until around World War II.)

Below: *"The clinking of buffers". In early 1973, a loaded coal train hauled by South Maitland Railways 2-8-2T number 18 (Beyer Peacock 5909 of 1915) has ground to a halt at the northern end of Weston yard to drop off a waggon. Photo: Shane O'Neil*

During the 1997 crushing season, Com-Eng 0-6-0DH locomotives 16 (A1102 of 1955) and 11 (C1125 of 1957) wait at the terminus while the last bins in their train are filled. *Photo: Rod Milne*

Little Tableland and the South Johnstone multi twins

by Rod Milne

In the 1990s, I was fortunate enough to work in far north Queensland, initially out of Innisfail but later Tully and Nerada. While the weather is perhaps not the area's strongest feature (after living there for over two years, the magic of rain began to lose its charm!) a fondness for the cane railways rapidly developed. Tully was my favourite mill but Mourilyan and South Johnstone had their charms. Each of the three mills had a different approach to working and in many ways were really quite distinctive, with Mourilyan running lots of small cane trains hauled by small 0-6-0DH locos and Tully having bigger ex-QR bogie locos to share with the smaller units. Both South Johnstone and Tully (as well as nearby Babinda) deployed Commonwealth Engineering multi-paired 0-6-0DH units.

In the case of South Johnstone, the star performer was the vintage pairing of number 11 (C1125 of 1957) and number 16 (A1102 of 1955). In 1986, they had been given Rolls-Royce engines and fitted for multi-pair use but they still retained their old open-style cabs and their rugged 1950s looks. Following the buyout of South Johnstone Mill by Bundaberg Sugar in 2001, they were renumbered 31 and 36.

Their patch covered a lot of the main line south to Mena Creek and Bombeeta, plus the branch lines as well. On at least one occasion, I saw them up at Coorumba on the Nerada line, and they even appeared out at the furtherest extent of the No.6 Branch, due west of South Johnstone. The cluster of sidings just north of the big bank at Bombeeta often saw the pair at work, and without a doubt they also ran the periodic runs out to the No.2 Branch diverging at Mena Creek itself. They tended to have the pickup role, doing all the smaller sidings closer to the mill to allow the bigger bogie units to haul the through loads.

When I worked at Innisfail, I was fortunate to have a colleague who had previously had a stint on the locos at South Johnstone mill. He lived there and, knowing my interest in things rail, regaled me with stories of his brief stellar career working the cane locos. Much of his work seemed to have been closer to the mill, the runs that multi-paired numbers 11 and 16 participated in. Describing his workings (he often seemed to do the night shifts), he told me of the fascinating little spurs off the main line, including the evocatively named Little Tableland!

Little Tableland is not that far from South Johnstone mill; you cross over the river on the Japoon Road and then climb up from the flats, and there at the top of the ridge line is the terminus of the Little Tableland branch. Commanding an impressive view over the valley, the terminus then comprised a simple loop only, though there were still crossing rails in the roads denoting where former dismantled spurs once also diverged. Just near the end of the rails was the turnoff to the No.1 Branch Road, the area once being called Floriana, at least according to the maps.

Now the Little Tableland line was a fascinating line, for cane leaving it actually went in the opposite direction, south towards Mena Creek, before heading back to the mill. It was a classic back shunt branch line, running parallel to the main Japoon Road before joining with another branch along Germantown Road and reaching the main line junction siding, just south of the Japoon Road crossing. Here a reversal of direction was required before cane bound for the mill headed north, dropping down the spectacular descent to the river, crossing Camp Creek Road en route.

Needless to say, it was a tricky back shunt to work, the loop at the main line being a key location where loaded bins from the spurs were assembled to form the next load down to the mill. From the end of the Little Tableland line, where the rails faded off into the red dirt, it was not that far to the mill proper, perhaps not much less than two kilometres. But by cane train, it was at least double that distance, perhaps even five.

In my time in the north, I was fortunate to encounter two cane trains on the Little Tableland line. Both times, it was

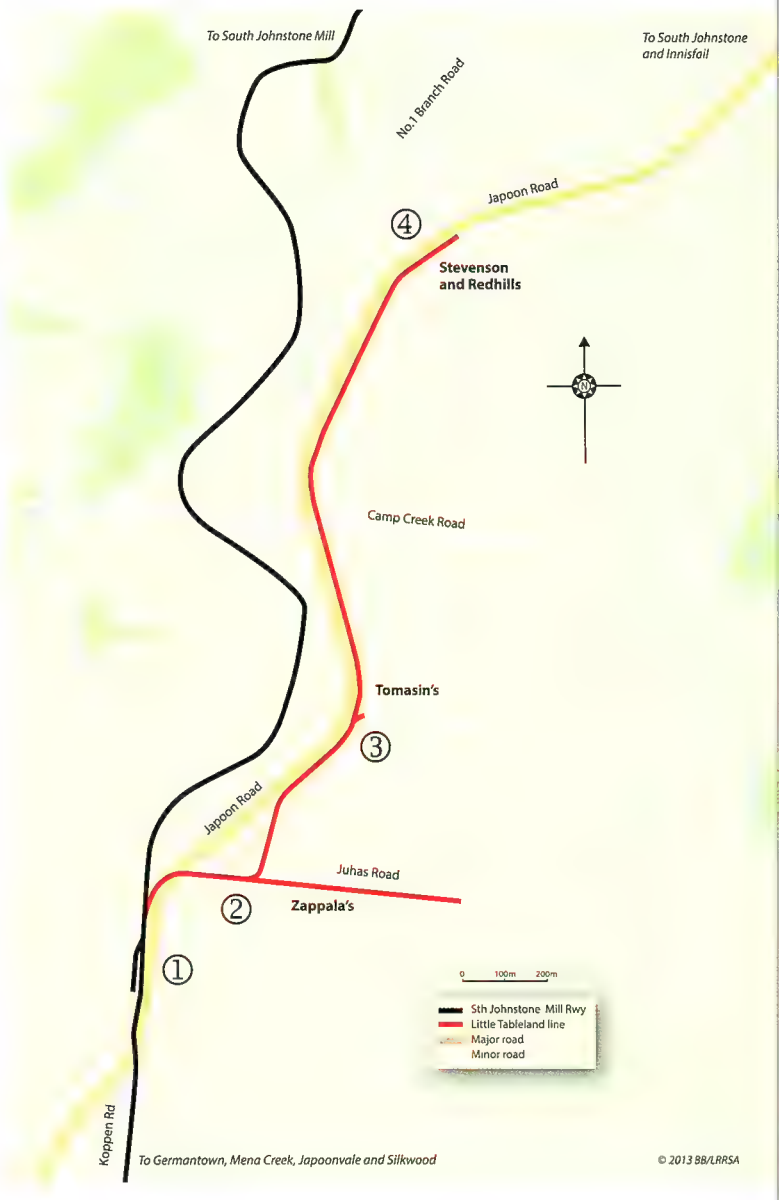
the multi pair of numbers 11 and 16 hauling it, though on one occasion I just missed the annual run of the weed train down the branch. The evidence of its recent trip was obvious, the cut of the wheels through the mud and dirt as the train endeavoured to regain some modicum of civilisation for a piece of infrastructure sorely diminished during the Wet.

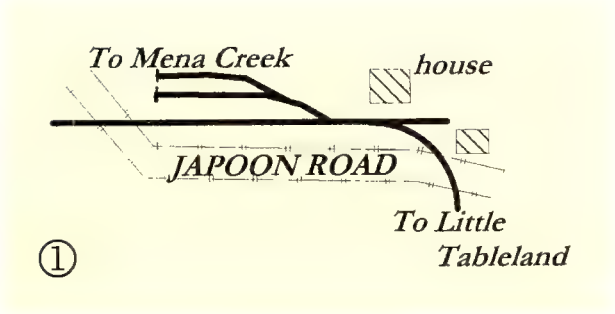
Both times, the multi pair was loading up at the terminus loop, waiting patiently for the last bins to be filled by haulout trucks from the adjacent paddocks. Once that was done, the locos kicked the load into action, and ambled sedately alongside the main road to the Germantown points before entering the main line and loop. Here, the locos ran around, and gathered whatever else was on offer to make a full load for the descent on the main line down to the Silver Bridge across the South Johnstone River and beyond it the mill.

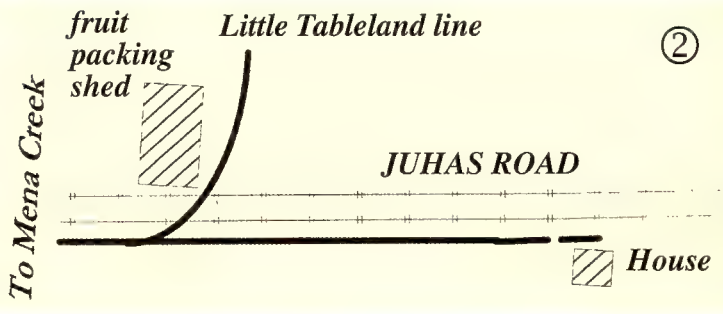
Anyone who witnessed the wonderful pairing of numbers 11 and 16 (later 31 and 36) will attest to their delightful presence. Brightly painted in yellow, this pair of locos was easily recognisable from the rest of the South Johnstone fleet, going about their humble task amongst the vivid greens of the Mena Creek canefields with the splendid Basilisk Range bounding the area to the east. It was always an utter delight to encounter the multi pair at work on one of the small branch lines, like the Little Tableland.

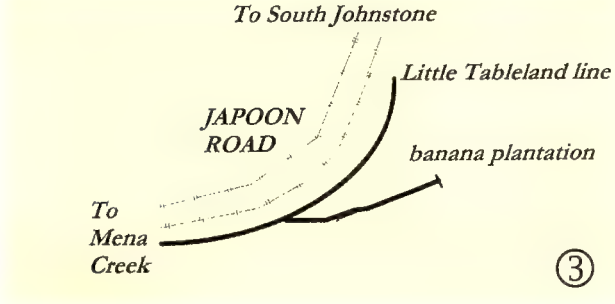
Unfortunately, I have not been back up there for a good many years, though even then the short roundabout cane haul via rail from the Little Tableland to the mill seemed a marginal one. Now a new rail bridge connects South Johnstone Mill with the old Mourilyan system and the old 'Silver Bridge' on the line to Mena Creek is no longer fit for locomotive passage. A single diesel locomotive is based south of the Silver Bridge and still gathers up cane from the red soil areas south of the mill, including the Little Tableland Line, pushing the loaded bins across the bridge for a yard loco to collect on the mill side.

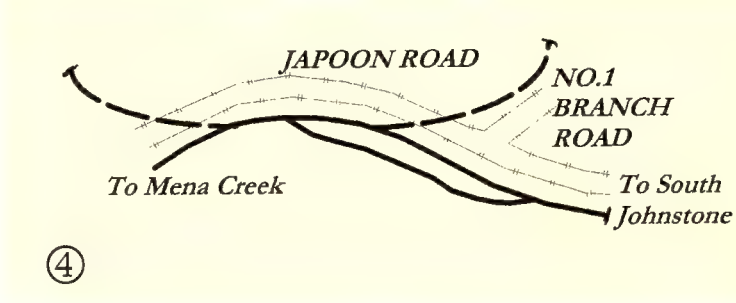
As for the classic multi-pair, it was displaced by other locomotives following the Bundaberg Sugar takeover. The twins went to Babinda in 2005, possibly with a view to refurbishment, but sadly languished there until sent for scrap a few years later.











Diagrams (not to scale) of the various sidings and junctions on the Little Tableland line. The approximate location of each is shown on the overall map above by the codings ①, ②, ③, ④ as marked.

Industrial Railway NEWS

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750mm gauge Schöma Model CFL 180 DCL 4wDH locomotive on delivery to the Thiess City East Cable Tunnel site in inner city Surry Hills, Sydney on 28 November 2012. Photo: Robert McFarlane

NEW SOUTH WALES

CFCL AUSTRALIA PTY LTD, Goulburn Railway Workshops

1453mm gauge

Ex Kowloon-Canton Railway Bo-Bo DE TL153 (Clyde 57-143 of 1957) was in use as workshops shunter here during late December 2012. It has been fitted with a replacement engine at Goulburn.

Leon Oberg 12/12

THIESS PTY LTD, City East Cable Tunnel, Riley Street, Surry Hills

(see LR 221 p.23)

750mm gauge

This project involves the construction for Ausgrid of a 3.5m diameter 3.2km long tunnel from Riley Street, Surry Hills, to the City North electricity sub-station in Sussex Street. The tunnel will house 132kV power cables to complete the 'ring main' linking the City West Cable Tunnel and City South Cable Tunnel. The tunnel boring machine previously used for the City West project is in use and the tunnel is progressively lined with concrete segments. Construction access is from a large shed structure at the Riley Street site and the work is expected to be completed in 2015 at a cost of $142m.

On 28 November, a 27-tonne Schöma 4wDH locomotive was seen being delivered to the site by road vehicle and it is understood that three of these locomotives are in use for muck disposal and segment transport. These are Model CFL180 DCL B/n 6651 to 6653 of 2012. A further smaller Schöma 4wDH locomotive, Model CHL 20G, 6654 of 2012, is believed to be intended for man transport. Current rolling stock is said to consist of 10 muck cars, 7 segment cars and 4 flatcars.

Ulrich Völz via Philip G Graham 11/12; Robert McFarlane 11/12; Martin Bell 12/12; Ray Gardiner 1/13;

http://www.leighton.com.au/our-business/projects/city-east-cable-tunnel

http://www.ausgrid.com.au/Common/Network-projects/Network-projects-by-area/Sydney-CBD-and-East/City-East-Cable-Tunnel.aspx

http://trenchless-australasia.com/news/sparking_sydneys_cbd/056003/

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill

(see LR 228 p.20)

610mm gauge

A visit late in December revealed Walkers B-B DH *KOLAN* (633 of 1969 rebuilt Bundaberg Foundry Engineers 1996) and EM Baldwin B-B DH *MIARA* (8988.1 6.80 of 1980) with their bogies removed for maintenance. The Baldwin had its hood removed also.

Three locomotives that are normally stationed at Fairymead were over at Bingera for slack season maintenance, EM Baldwin B-B DH locomotives *MOORLAND* (5565.1 10.74 of 1974), *BUCCA* (6104.1 8.75 of 1975) and Bundaberg Foundry Engineers B-B DH *BOOYAN* (001 of 1991). Only EM Baldwin 0-6-0DH *PERRY* (6/1576.1 8.66 of 1966) was left in the shed at Fairymead. However, parked at the old Fairymead Mill site in company with a variety of navvy equipment were observed Com-Eng 0-6-0DH *SHARON* (A1935 of 1939) and Malcolm Moore 4wDH 1025 of 1943 rebuilt Bingera 1969.

Ex-Moreton Mill 0-6-0DH locomotives *DUNETHIN* (Com-Eng A1922 of 1958 rebuilt QR 1974), *BLI-BLI* (EM Baldwin 6/1257.1 7.65 of 1965) and *PETRIE* (EM Baldwin 6/2300.1 6.68 of 1968) have been displaced from the large workshop shed. They have been replaced there by Com-Eng 0-6-0DH *INVICTA* (A1513 of 1956 rebuilt Bundaberg Foundry Engineers 2001) and the three EM Baldwin B-B DH locomotives of 1975: *OAKWOOD* (5800.1 5.75), *GIVELDA* (5800.2 6.75) and *DELAN* (5800.3 7.75).

Unrebuilt Walkers B-B DH DH41 (623 of 1969) has been taken from storage at the Bundaberg Foundry and is now stored at the navvy depot at Bush Paddock near Fairymead.

Luke Horniblow 12/12

BUNDABERG SUGAR LTD, Millaquin Mill

(see LR 224 p.24)

610mm gauge

On 22 November, EM Baldwin B-B DH *CALAVOS* (4983.1 1.73 of 1973) was noted derailed at Farquhars Road in the old Qunaba Mill area. A fishplate had given way on a curve, derailing the lead bogie and ten loaded bins.

David Mewes 11/12

MACKAY SUGAR LTD, Mackay area mills

(see LR 228 p. 21)

610mm gauge

EM Baldwin B-B DH accident victim *BALMORAL* (10684.1 4.83 of 1983) was being stripped down in the Farleigh loco shed on 23 November.

An unusual sighting on 6 December was a pair of separately crewed Clyde 0-6-0DH locomotives double heading on the Pioneer line of Farleigh Mill.

PLEYSTOWE *(64-321 of 1964) and* ST.HELENS *(61-234 of 1961)* were noted hauling 42 loaded 6-tonne bins.

Following the end of the season, locomotives made their way back to their respective maintenance centres for slack season attention. EM Baldwin B-B DH locomotives *SHANNON* (7126.1 5.77 of 1977), *LANGDON* (9562.2 6.81 of 1981) with *BVAN 6* (Farview Engineering 2011) and *NORTH ETON* (6780.1 8.76 of 1976) were noted running in convoy to Farleigh Mill on 13 December.

Scott Jesser 12/12

MACKAY SUGAR LTD, Mossman Mill

(see LR 227 p.20)

610mm gauge

During the last week in November, Com-Eng 0-6-0DH *MOSSMAN* (B1719 of 1957) was engaged on weed spray duties on the northern lines of the system. EM Baldwin B-B DH *DAINTREE* (7303.1 7.77 of 1977) was outside the shed on shop bogies and with engine removed.

Mike McCarthy 12/12

MSF SUGAR LTD, Mulgrave Mill

(see LR 227 p.20)

610mm gauge

With the advent of the slack season, less favoured locomotives were parked in the navvy area as noted on 25 November. Com-Eng 0-6-0DM 2 (A1001 of 1955) has a small engine water leak and is retained for preservation with its headlights removed. During the crushing it sits over the wheel turning pit in the shed but has to make way during the slack season. Com-Eng 0-6-0DM 3 (A1003 of 1954) also has an engine water leak. Com-Eng 0-6-0DM 5 (1005 of 1954) is spare. Com-Eng 0-6-0DH 6 (A1006 of 1954) has no engine. EM Baldwin 4wDM 10

Above: *With a good crop of mangos ripening above, Mackay Sugar's Clyde 0 6 0DH* SEAFORTH *(61-233 of 1961) climbs Krisin's Hill on Farleigh Mill's Costellos Line with 20 loaded 6-tonne bins on 4 December 2012. Photo: Scott Jesser*

Below: *Mackay Sugar's Walkers B-B DH 38* MICLERE *(664 of 1970 rebuilt Farleigh Mill 1996) catches the afternoon sun as it brings a load across the Pioneer River road/rail bridge to Marian Mill on 9 December 2012. The Marian high-level bridge came into use in 1991. Photo: Hayden Quabba*

Industrial Railway NEWS

MULGRAVE (6/881/1 6.64 of 1964) has not been used for some years. Although new drive chain and sprockets are on hand for fitting to it, this is a very low priority job. EM Baldwin 0-6-0DH 11 *MAITLAND* (4413.2.8.72 of 1972) needs attention for a clutch problem. Clyde 0-6-0DH 14 (56-86 of 1956) has a low speed gearbox and brass bearings so no longer sees regular use. The "Pie Cart" 4wDM (Mulgrave Mill 1962) and Motor Rail 4wDM 10450 of 1954 are also out of use in the navvy yard.
Com-Eng 0-6-0DH 7 (B1010 of 1956) was on truck shop duties. All the bins have been separated into different types (4-tonne, 6-tonne and 10-tonne) for maintenance purposes.
Carl Millington 11/12; Tom Porritt 11/12

MSF SUGAR LTD, South Johnstone Mill
(see LR 226 p.24)
610mm gauge
On 6 November, Clyde 11 (55-64 of 1955) was noted waiting to cross the QR at Garradunga taking empty 6-tonne bins north for slack season storage. By 16 December, this locomotive and Clyde 0-6-0DH 17 (55-57 of 1955) were at the Silkwood out-depot together with Clyde 6-wheel brake wagon 1 (CQ2413 of 1972).
On the same date, an impressive array of locomotives was at the mill. All the bogie locomotives and the bogie brake wagon had their bogies removed for maintenance. EM Baldwin B-B DH 25 (6470.1.1.76 of 1976) is having a new torque converter fitted. EM Baldwin B-B DH 24 (5477.1 8.74 of 1974) had been moved around on shop bogies by Com-Eng 0-6-0DH 39 (AH4688 of 1965). Clyde 0-6-0DH 16 (56-93 of 1956) was on truck shop duties.
Carl Millington 11/12; Luke Horniblow 12/12

SUCROGEN (HAUGHTON) PTY LTD, Invicta Mill, Giru
(see LR 224 p.26)
SUCROGEN (KALAMIA) PTY LTD
(see LR 222 p.22)
610mm gauge
Kalamia Mill's Walkers B-B DH *KILRIE* (632 of 1969 rebuilt Bundaberg Foundry Engineering 1992) was noted at Invicta Mill on 9 December, the last day of the district crush.
Meanwhile, across the Burdekin district as a whole, cane production is forecast to expand from 8 million tonnes to 12 million tonnes in the next five years.
Luke Horniblow 12/12; *Herbert River Express* 12/12/2012 via Chris Hart

SUCROGEN (HERBERT) PTY LTD, Herbert River Mills
(see LR 227 p.21)
610mm gauge
Victoria Mill's Clyde 0-6-0DH *PERTH* (69-682 of 1969) was on loan at Macknade Mill for bulk sugar haulage from 3 to 12 November to cover for a breakdown of Macknade's EM Baldwin 0-6-0DH 14 (6/2490.1 7.68 of 1968).
Invicta Mil's Tamper Model STM-XLC tamping machine (94952 of 1993) continued on loan to the Herbert River mills in November. On 6 November it was sighted parked at 1 Seymour on the Macknade system and the following day EM Baldwin 4wDH *Sugarworld Shuttle* (9109.1 9.80 of 1980) was parked at the same location with three ballast hoppers and a ballast plough. The Tamper was back at Invicta Mill by 9 December.
A batch of new 8-tonne bins is being assembled at Corradini Engineering using mill labour.
Hudswell Clarke 0-6-0 *HOMEBUSH* (1067 of 1914) ran on 8 December for the Victoria Mill social club Christmas party. It is hoped that next year it will also be able to appear at the Macknade Mill party.
Macknade Mill's EM Baldwin 0-4-0DH 17 (6/1446.1 9.65 of 1965), ex Condong Mill, has been acquired for preservation by Illawarra Light Railway Museum Society at Albion Park, NSW.
Chris Hart 11/12, 12/12; Carl Millington 11/12; Luke Horniblow 12/12; Brad Johns 1/13

SUCROGEN PLANE CREEK PTY LTD, Sarina
(see LR 228 p.22)
610mm gauge
Clyde 0-6-0DH D1 (56-101 of 1956) was apparently moved back to the mill by road transport from the isolated section of track on the Plane Creek branch on 11 December.
Scott Jesser 12/12

Amid the red soil of the old Qunaba Mill area, Millaquin Mill's EM Baldwin B-B DH CALAVOS (4983.1 1.73 of 1973) came a cropper on 22 November 2012 at Farquhars Road, on what is now known as the Qunaba Line, when a fishplate failed. Help arrived in the shape of a mobile crane and here the early model bogie Baldwin is being rerailed, with ten loaded bins to follow. *Photo: David Mewes*

Top: *Just south of Howells Loop on Farleigh Mill's North Coast Line, a slave train of in excess of 1000 tonnes snakes through the curves on 9 December 2012. Leading is Walkers B-B DH* CEDARS *(693 of 1972 rebuilt Walkers 1997) with* DULVERTON *(690 of 1972 rebuilt Walkers 1997) half way down the rake. Brake wagon BV4 (Farleigh Mill 1998) brings up the rear. Photo: Hayden Quabba*

Left: *Pioneer Mill's 1067mm gauge Walkers B-B DH* JERONA *(647 of 1970 rebuilt Pioneer 1993) at BSES (Bureau of Sugar Experiment Stations) just south of the mill on 24 November 2012. Photo: Hayden Quabba*

Above: *Seven Com-Eng and three Clyde 0-6-0DH locomotives parked outside the storage shed at South Johnstone Mill for off season maintenance on 15 December 2012. Too many to give complete details, but they are (left to right) 38, 12, 15, 4, 5, 8, 9, 14, 6 & 7. Photo: Luke Horniblow*

Top: *Sucrogen's Walkers B-B DH* KILRIE *(632 of 1969 rebuilt Bundaberg Foundry Engineers 1992) crosses Lilliesmere Lagoon to enter the Kalamia Mill yard from the south-east with a loaded train on 24 November 2012. Photo: Hayden Quabba*

Left: *At Tully Mill, the new cab for the latest Walkers DH-class rebuild waits to be fitted on 15 December 2012. The locomotive is expected to be in service for the 2013 season. Photo: Luke Horniblow*

Above: *At Mossman Mill, Com-Eng 0-6-0DH* MOSSMAN *(B1719 of 1957) waits outside the locoshed for its next turn on weed spraying duties on 1 December 2012. The mill's bogie spray wagon is a sophisticated affair as the battle against tropical weed growth is a constant one here. Photo: Mike McCarthy*

SUCROGEN (PROSPERPINE) PTY LTD,
Proserpine Mill
(see LR 228 p.22)
610mm gauge
On 11 December a fatality occurred when an employee was crushed between empty cane bins. It is believed this occurred close to the tippler area of the mill.
Daily Mercury 13/11/2012

THIESS PTY LTD,
The Narrows LNG Tunnel, Gladstone
762mm gauge
Thiess has won a contract to build a 3.4m diameter 4.3km long tunnel linking the new Santos liquid natural gas plant on Curtis Island with the mainland, at a cost of $134m. The tunnel will house a gas pipeline and will be constructed using a tunnel boring machine. It will be lined with concrete segments. This construction project will utilise four Schöma 4wDH Model CFL 150 DCL 20-tonne locomotives, builder's numbers 6669 to 6672. Construction is expected to start around the start of 2013.
Ulrich Völz via Philip G Graham 11/12; Ray Gardiner 1/13;
http://www.tunnelsonline.info/news/australias-santos-glng-tunnelling-contract-awarded-180912

TULLY SUGAR LTD
(see LR 227 p.23)
610mm gauge
EM Baldwin 0-4-0DH 2 (6/1082.2 2.65 of 1965) was noted in the shed at the El Arish out depot in mid-December with a navvy work wagon.
The new cab for the latest Walkers locomotive rebuild had been delivered to the mill in undercoat by mid-December.
Luke Horniblow 12/12

VICTORIA

JOHN HOLLAND PTY LTD,
Melbourne Replacement Sewer Project
(see LR 228 p.22)
762mm gauge
Information from Germany indicates that Schöma 4wDH 6374 of 2009 was supplied specifically for this project. During 2012, it returned to its makers for refurbishment and resale to the USA.
Jens Merte 1/13

WESTERN AUSTRALIA

BHP BILLITON IRON ORE PTY LTD
(see LR 228 p.23)
1435mm gauge
On 2 December, BHP Billiton Iron Ore switched over train control to its new Integrated Control Centre located in central Perth. This ends 40 years of Train Control being undertaken in Port Hedland.
The new Car Dumper 5 at Finucane Island saw its first test train of 26 cars on 26 November and the first service rake went through on 27 November.
WA Railscene e-mag 221

CFCL AUSTRALIA PTY LTD
(see LR 228 p.23)
1435mm gauge
The overhaul and refurbishment of three more ex-Robe River locomotives is underway at United Goninan in Bassendean as follows:

CD4302	Co-Co DE	Com-Eng	C6101-01	1977
		reb.Goninan 137		1993
		ex Robe River 9421		
CD4303	Co-Co DE	Com-Eng	C6116-01	1980
		reb.Goninan 126		1992
		ex Robe River 9423		
CD4304	Co-Co DE	Alco	6010-01	1970
		reb.Goninan 083		1989
		ex Robe River 9417		

CD4301 *THE VICTORY* (Com-Eng Co-Co DE C6096-05 of 1975 rebuilt Goninan 202 1996) has been in use hauling ballast trains on the FMG Solomon extension.
WA Railscene e-mag 220

GREENTRAINS LTD, Port Hedland, WA
(see LR 228 p.23)
1435mm gauge
It is understood that the four locomotives stored at the former Asset Kinetics yard at Wedgefield, Port Hedland, will be scrapped. They were rebuilt by GTSA Engineering in 2008 and were used in construction duties on the initial Fortescue Metals railway construction project. The details are:

DR8401 *Jean*	Co-Co DE	Alco	3499-03	1968
		reb.Com-Eng WA143-2		1987
		reb.GTSA		2007
		ex Robe River 9426		
DR8402 *Margaret*	Co-Co DE	Goodwin	G-6011-02	1968
		reb.Com-Eng WA		1985
		reb.GTSA,		2007
		ex Hamersley 3007		
DR8403 *Rachael*	Co-Co DE	Alco	3499-02	1968
		reb.Com-Eng WA143-1		1987
		reb.GTSA,		2007
		ex Robe River 9427		
DR8404 *Vera*	Co-Co DE	Goodwin	G-6040-01	1970
		reb.Com-Eng WA		1985
		reb.GTSA, 2007		
		ex Hamersley 3013		

WA Railscene e-mag 217

THE PILBARA INFRASTRUCTURE PTY LTD
(see LR 228 p.23)
1435mm gauge
The 130km line to Solomon Hub opened on 1 December a 240 wagon train of 23,000 tonnes of iron ore being hauled from the Firetail orebody. The new line branches off about 175km from Port Hedland and heads west for 130km to Solomon in the Hamersley Ranges. Also being undertaken is duplication of the first 120km of track from Port Hedland, together with the expansion of unloading facilities at Port Elliott and increased rail yard capacity at the new Kanyirri Yard near the original Rowley Yard.
FMG now has 700km of track in use and from March 2013 will operate 11 ore trains a day running from Cloudbreak, Christmas Creek and Solomon mines. With 11 further SD70ACe locomotives due to be delivered in January 2013, FMG will have 43 locomotives (with two more on order), 3000 ore cars, 30 fuel tankers and 47 ballast hoppers. An Integrated Train Control System with GPS tracking and train orders issued by digital communications is in process of being introduced.
FMG is looking to sell a minority stake in The Pilbara Infrastructure Pty Ltd in order to retire debt and fund further development.
David Bromage 11/12; *WA Railscene* e-mag 222; FMG Ltd 2/12/12 & 17/12/12

OVERSEAS

FIJI SUGAR CORPORATION
(see LR 228 p.24)
610mm gauge
From 5 November, Rarawai Mill's Clyde 0-6-0DH 55 (DHI.6 of 1955) was on loan at Lautoka Mill, while recently arrived 60 (60-219 of 1960) and 56 *HINKLER* (56-89 of 1956) both remained at Rarawai.
Proposals to use the FSC rail system for transport and tourism purposes during the off-season have been mooted.
Lindsay Wheeler 11/12; *Fiji Times* 24/11/12

OK TEDI MINING LTD, PAPUA NEW GUINEA
(see LRN 227 p.24)
It appears that the locomotive used on this project was a Schöma Model CFL150DCL 4wDH overhauled in the USA by Mining Equipment Inc.
The locomotive type in question is quite distinctive with a narrow engine hood and a sloping hood roof to the front engine compartment. It comes from a unique group, Schöma 5199 to 5208 built for Transmanche Link (TML) and used on construction of the Channel Tunnel between France and England. Two of these, 5199 and 5200, were subsequently upgraded by Schöma to 25 tonne Model CFL180DCL. Although a number of the batch of TML locomotives appear to have come to the USA and Canada, the identification of the Ok Tedi locomotive as being 25 tonne would strongly suggest it is one of 5199 and 5200. However, the global tracking of tunnelling locomotives is a difficult undertaking so this suggestion must be regarded as tentative only.
Philip G Graham 11/12; Editor

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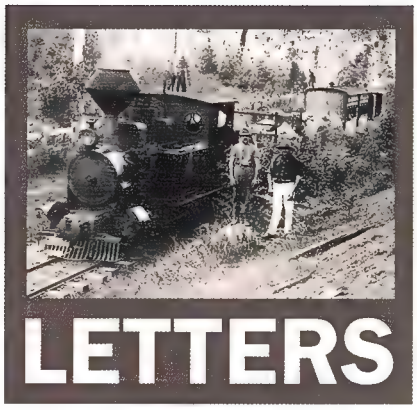
See: **http://au.groups.yahoo.com/group/LRRSA/** and click on "Join This Group"!



editor@lrrsa.org.au

Dear Sir,

Nyrstar Hobart Pty Ltd, Lutana, *Light Railways* No 227

I visited the Risdon works in December 1987 when it was operated by The Electrolytic Zinc Company of Australasia Ltd (EZ). EZ was then wholly owned by North Broken Hill Holdings Ltd. The plant produced zinc metal from zinc sulphide concentrates in five steps:

1. Roasting of the concentrates to produce a zinc calcine.
2. Acid leaching of the calcine
3. Purification of the resulting zinc solution.
4. Electrolysis of the zinc solution to deposit zinc metal on cathodes, and stripping of the zinc from the cathodes.
5. Melting of the zinc to cast zinc slabs or blocks

There were also other processes producing acid, fertiliser and by-product metals.

At the fourth step the cathodes were transported on small 2ft gauge rail trucks inside the electrolysis section, and a track extended outside the building to a small dump area. A description of the plant dated from about 1986 only mentioned a rail system in the electrolysis section .

The works are located on the side of a hill on the Derwent River and previously had an extensive 2ft gauge railway system. This is described in two papers dating from 1923 and 1937. Both papers mention the use of cable haulage and do not make any reference to locomotives. The 1923 paper lists the following materials being handled by rail :

- Zinc calcine shipped from external roasters for a second roasting stage - no zinc concentrate was brought to site. This was carried in side tipping trucks.
- Limestone.
- Coal for further roasting of the calcine, and zinc melting furnaces.
- Cathode zinc from the electrolysis section, via an elevator to the drying tunnel, and then to the melting furnaces.
- Slab zinc at the wharf.
- Residue from the leaching plant for transport to the wharf, for shipping to Port Pirie for further treatment.

The transport of calcine up the main haulage to the roasting division at an elevation of 160 ft above sea level was described as having a maximum grade of 1 in 5. The trucks were taken up in rakes of ten making a total load of 9 tons.

Track to the dump, and turntable, at the electrolysis section, Risdon works, December 1987.
Photo: Tony Weston

The interesting track layout inside the building at the electrolysis section, Risdon works, December 1987.
Photo: Tony Weston

0-4-2T Abt locomotive MOUNT LYELL No.2 *(Dübs 3594 of 1898) at the head of a mixed train at Regatta Point, January 1948.*
Photo: Michael Gourlay

The locked shed near Regatta Point station, that contained the stored Baldwin locomotive in January 1948. *Photo: Michael Gourlay*

The 1937 paper includes a plan of the Risdon works showing the 2ft gauge railway system with four inclined haulages, three lateral branches including one along the wharf, and another line labelled as "trackage to quarry". The plan shows approximately 1.5 route miles of track.

Later technical papers on the works make little or no reference to the 2ft gauge railway operations.

Tony Weston
Melbourne, Vic

Dear Sir

The Mount Lyell Baldwin locomotives (LR 228)

I was very interested to read Jim Stokes' account of the Mount Lyell Railway's Baldwin 0-6-0 tank locomotives in the December issue.

Many years ago in January 1948 I visited Queenstown for a few days while on holiday in Hobart. A highlight of my visit was a return journey to Regatta Point on the Mt Lyell Railway. I spent some time exploring the area looking at items of railway interest, walking around the seafront to Strahan to inspect the wharf and TGR facilities there, as well as looking around the Regatta Point station yard. Besides noting the diesel shunter, I investigated the locked engine shed across the road from the station. Looking through the dirty glass windows in the side wall of the shed, it was possible to see a locomotive inside. I had seen and photographed all five of the Abt locos and clearly it was not one of them. So what was it? On return to Queenstown I asked one of my adult relatives who worked in the mine about it. "Oh, that would be the Baldwin", I was told. However, he did not give me a very convincing explanation as to why the Mount Lyell Railway needed an adhesion locomotive.

Jim Stokes has now provided that answer in a very comprehensive and interesting article, more than sixty years after my very brief encounter with 'the Baldwin'.

Thank you Jim.

Michael Gourlay
The Gap, Qld

Dear Sir

Langley Brothers (LR 226, LR 228)

There is a photograph of the *Bowra* on the slipway, and alongside is the bucket dredge *Iota*, which dredged to the second wharf (*devirs*) as the first wharf was disused due to shallowing. A calendar has a photo of *Iota* in action and alongside the wharf is a steam-powered barge with its boiler, engine and paddle wheels aft at the side – it could be used for general cargo, animal pens at the bow.

Bowraville was originally named Bowra, but the postal authorities said it could be confused with Bowral, in the Southern Highlands, so the 'ville' was added.

The Nambucca Heads Museum has photos of shipping, coastal and river. The topographic map 1:25 000 Macksville 9536–1s third edition shows the river to Bowra as the Nambucca, to the junction of the north and south arm rivers.

I was born in Bowraville, in 1934. The town has two museums – the local history museum and the Frank Partridge VC Military Museum.

Peter MacDonald
Woodhouselee, NSW

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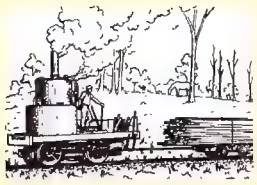


LRRSA NEWS

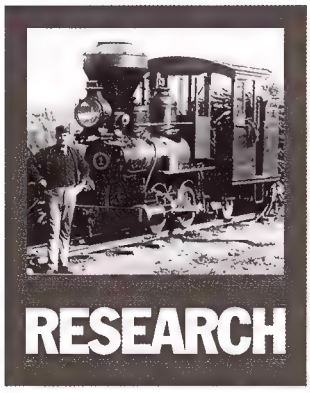
MEETINGS

ADELAIDE: "Gerry Ohmer's railway films"
More films from Gerry Ohmer, including steam industrial railways in north-east England. Bring along an item of light rail interest. We would like to hear from any member who can supply current information on heritage or tourist light rail sites in South Australia.
Location: 150 First Avenue, Royston Park.
Date: Thursday 7 February at 8.00pm.
Contact Les Howard on (08) 8278 3082

BRISBANE: "Show and Tell "
The February meeting will be a show & tell night, for members to bring something of interest along relating to light railways.
Location: BCC Library, Garden City Shopping Centre, Mount Gravatt. After hours entrance (rear of library) opposite Mega Theatre complex, next to Toys'R'Us.
Date: Friday 15 February at 7.30pm.

MELBOURNE: "Wonthaggi brickworks and its tramway"
Mike McCarthy will be speaking on the Wonthaggi brickworks and its 2ft gauge tramway link to the town. The full story of a grand scheme for a model town and the Government's cover-up of an embarrassing failure.
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday, 14 February at 8.00pm

SYDNEY: "AIS steelworks, Port Kembla"
Mr Bill Parkinson, who spent his entire working life as an electrical fitter maintaining the fleet of English Electric diesel locomotives used in industrial service at the AIS Steelworks at Port Kembla, will give a presentation, both reminiscing and with photographs about his long career. The steelwork's standard gauge railway system was one of the larger industrial rail operations in NSW and its fleet of EE locomotives worked both internally and over the once NSWGR system to outlying collieries. This promises to be a very interesting evening for those members and visitors interested in industrial railways.
Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).
Date: Wednesday 27 February at 7.30pm



I hope everyone had a good break over the Christmas and New Year period, and look forward to hearing from you with your research questions or field reports large and small.
fieldreports@lrrsa.org.au or to P.O. Box 21, Surrey Hills, Vic 3127.
Thank you to everyone who has contributed, either directly, or via the Yahoo group.
Scott Gould

Langley Vale Tramway, NSW
The Bulahdelah historical society recently digitized a seven minute silent film of Langleys' tramway and sawmill taken in the 1920s. Ian McNeil has provided a copy to the society which can be seen on the LRRSA website at:
http://www.lrrsa.org.au/Lr_videos.htm

Recent discussion on the Yahoo group covered an interesting range of topics, some of which are:

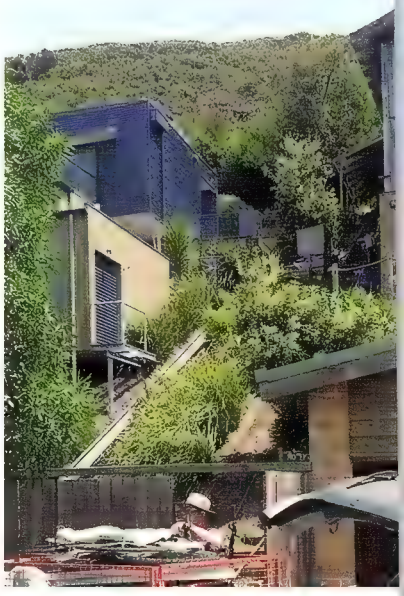
Tramways of the Mornington Peninsula
Michael Milway initiated a lengthy discussion of tramways which once operated on the Mornington peninusula, southeast of Melbourne. Thanks to Phil Rickard and others, a well referenced summary of tramways identified is:
Frankston – public jetty [*PWD drwg HWJ 3337 – Addn to jetty & tmy, 3346 – Tmy truck etc]
Whistle Stop near Frankston. This was built as part of a tourist destination.
Mt Eliza quarry
Mount Eliza – slipway from Ranelagh Club – Motor Boat Squadron boathouse about 85m, 3ft 6ins gauge.
Mornington – Mornington Yacht Club - traverser/slipway
Mornington – Timber yard in Barkly St
Mornington (Schnapper Point)/ Mount Martha/Osborne – Patent Septaria Cement Co. works jetty – incomplete at time of sale of works and tramway in 1863.
Dromana – public jetty [PWD drwg HWJ 3316, 3326 – Altn of Tmy, 3328 – Addn/Altn Tmy etc]
Rosebud – public jetty
Rye (2 jetties) – public jetty; Tramway jetty – [PWD drwg HWJ 3713,22 etc] see <http://vhd.heritage.vic.gov.au/vhd/heritagevic#detail_ships;345> for details of the Port Phillip trade vessel *Eivion* wrecked here whilst loading.
Rye (or Tootgarook). Truemans Rd, Tramway for the transport of limestone from a quarry to a Lime and fertiliser/plaster works at the intersection of Point Nepean Rd and Truemans Rd.
Blairgowrie Canterbury Road [PWD drwg HWJ 3725 etc]
Blairgowrie – Yacht Club slipway [pre-1952 to present, 5ft 3ins, 212m length]
South Channel Fort – jetty and tram for coal to boiler room
Mud Islands – (a.k.a Flat Islands), guano extraction [1860s]
Sorrento – public jetty [PWD drwg HWJ 4011- 4055] Narrow-gauge tram to near the steam tram, and the well-known steam tram to Ocean Beach.
Portsea – (3 jetties) Victoria Lime and Cement Co. jetty; Duffy's lime kiln jetty; public jetty [PWD drwg HWJ 3734 etc]
Point Nepean/Portsea Quarantine station – jetty [PWD drwg HWJ 3748, 3751 etc]
Nepean Fort – jetty [PDW drwg HWJ 3750 etc]
Western Port
Flinders – public jetty. Blt 1870. [PWD drwg HWJ 4261-4279]
Shoreham - ? "*a timber industry, harvesting piles and sleepers, was established at Shoreham in the 1850s. . . . the timber was either floated out to waiting vessels or run out on temporary tramways*" - Byrne, G. 1932 *Early days of the Mornington Peninsula* p.193
Flinders Naval Base – Torpedo School jetty
Sandy Point (Hann's Inlet) – public jetty [PWD drwg HWJ 4419 etc]
"*There was also a tramway, at least in the 1870s, to the jetty at Hanns Inlet and this may well have been used for transporting timber*" - 58 Victorian Government Gazette, September 5, 1873
Stony Point – public jetty [PWD drwg HWJ 4416-18, 4420-23, 4427-4440]
Crib Point – "Woolley's jetty" Mornington Peninsula Shire HO322 Woolley's Cool Room, Woolley's Beach, Off The Esplanade, Crib Point. "*The cellar and land within nominally 5m of its perimeter, with emphasis on the fabric from or near the construction date c1903, plus any related fabric such as the jetty and tramline remnants.*"
www.mornpen.vic.gov.au/Documents/SE/PlanStrategic/43_01s_morn.pdf
Balnarring/Stony Creek – public jetty [PWD drwg HWJ 4424-26]
Hastings – public jetty (Are these two places one and the same, under different titles?)

Perry Locomotives of the SR&WSC VIC
The SR&WSC of Victoria used a number of 3ft 6in gauge Perry 0-4-0T locos on the Hume Dam construction. A number (if not all) were auctioned in September 1939 and I have photos of two of these, photographed in November 1939 standing in VR's Spencer Street Goods Yard. I would appreciate any help in identifying them.
One has 94 roughly painted on it (I assume this to be the auction lot number), 36 painted neatly on the cab back and 9/22 painted neatly inside the cab. The other has lot number 95, with 118 painted neatly on the right-hand cab side and 9/24 in the cab.
Richard Horne

The Perry locomotives from the Hume Dam saw re-use in Queensland, Tasmania and Victoria. The Hume Dam 3ft 6in gauge Perrys were:
- 247/1923
- 265/1925 – this was supposedly number 7
- 266/1926 – this was supposedly number 21
- 267/1926
- 268/1926
- 269/1926
- 270/1927

In addition, 271 was supposedly built to 3ft gauge for the associated Bethanga Bridge construction before being converted to 3ft 6in for Hume Reservoir.
There was also the similar but not identical Harman of 1923 which I believe was the prototype.
272 to 280 were for M&MBW at Silvan Dam, a completely separate issue.
A pair of locos at Spencer Street station could suggest they were consigned to go somewhere.
The obvious possibility is the pair that went to Evans Deakin at Rocklea (now Salisbury) in Brisbane. They are said to have arrived in 1940, and were 268 and 270, numbered LM2 and LM1 respectively by Evans Deakin.
John Browning

Domestic incline tramways, Eastern View, VIC
Three light railway inclines were observed at Eastern View along the Great Ocean Road recently. They are domestic railways used for transferring firewood and groceries from road level up to the houses above.
Stephen Larcombe



While I was aware of this style of tramway being used by dairy farmers to deliver milk churns to roadside for pickup before the advent of bulk tankers, I didn't realise such systems were still in use. Can any readers give details of other similar inclines?
Editor

Tweed Shire Council Community Based Heritage Study Thematic History
The following Tweed Shire history has some very useful material on the NSWGR, QR and Sugar industries. [19 MB in size]
Report for Tweed Shire Council September 2004
http://www.tweed.nsw.gov.au/PlanDevBuild/pdfs/Tweed_Thematic_History_2004.pdf
Peter Cokley

To participate in these or other interesting discussions join the LRRSA Yahoo group, at http://au.groups.yahoo.com/group/LRRSA/

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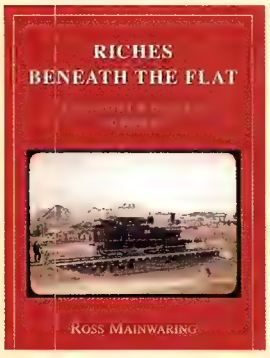
Riches beneath the Flat

A history of the Lake George Mine at Captains Flat



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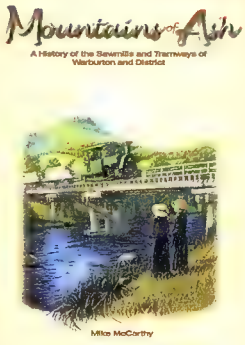

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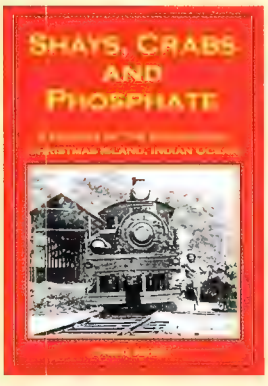

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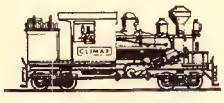

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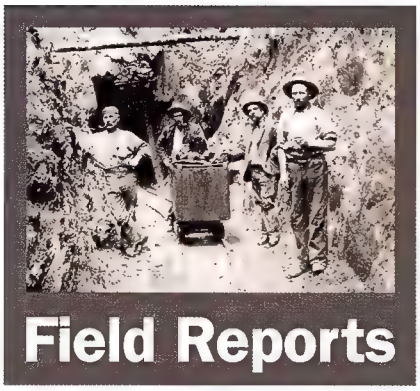

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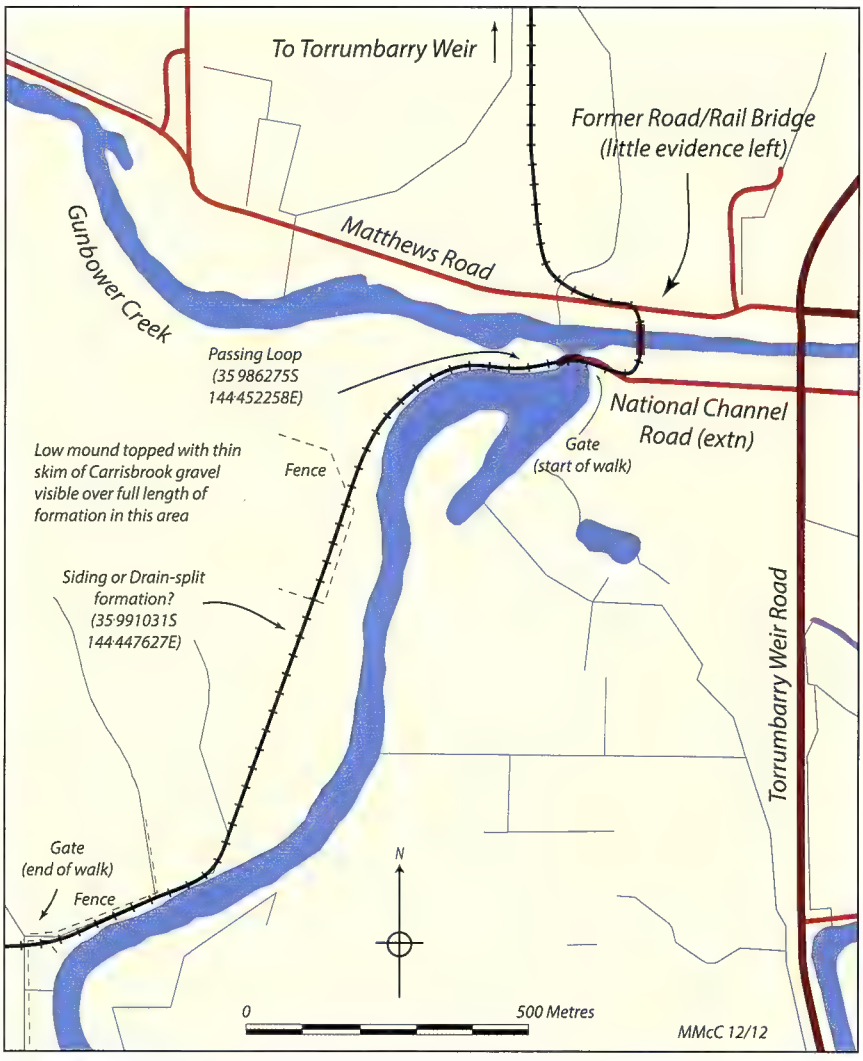
Old Fogeys' Torrumbarry Gallivant 2012
SRWSC Torrumbarry weir construction tramway, VIC (LR 22,24,73,74)

After a successful visit in 2011 to confirm the route taken by the Torrumbarry Weir construction tramway, a return visit was made on the 19/20 December 2012 with the aim of further exploring the tramway south of the Gunbower Creek crossing and any formations discoverable in the vicinity of the construction camp site, close to the weir.

Participants included John Dennis, Peter Evans, Colin Harvey, Chris Wurr and Mike McCarthy. The morning of the 19th was spent getting to Torrumbarry and the commencement of our exploration in blisteringly hot conditions at the end of the National Channel Road extension.

Last year's visit had led to the discovery of the formation of a 90 m passing loop 50 m from the culvert crossing that marked the start of our exploration (and first discovery!) last year. The newcomers were given the opportunity to inspect the site before we headed off along the formation. Exploration is easy in this sparsely vegetated country and the task in this case was made all that much simpler by the fact that the tramway was ballasted with Carisbrook gravel.



The gravel was recovered after the line was dismantled back in 1924 but the thin skim of remaining material provided a positive indicator that we were on track. Such an indication wasn't all that necessary in this area however as most of the alignment sat on a raised roadbed to aid drainage.

The formation was followed over the 500 m to the property boundary which marked the end of the last year's exploration and the start of "new territory". We skirted the property fence line which turned towards the south west and, fortunately for us, ran parallel with the tramway formation at only 50 m or so distance. The formation was clearly visible in the adjacent paddock.

Another 176 m brought us back to the formation as the fence line vectored away to the west. At this point however the formation had changed. On first appearance it seemed we were following another loop or siding of some sort. The proximity to the earlier loop would logically have ruled this out and the space between the two formations was narrower than that at the loop which cast doubt on it being a double set of rails. Ideas of a later constructed drain or irrigation channel cut along the centre of the formation were also explored but without a conclusive answer being reached. The anomaly covered a distance of over 530 m which would have been exceedingly long for a loop or a siding.

At 1.2 km from commencement the formation entered a curve to the south west and a further 300 m brought us to a gate and the end of our trek. We thought this led to private property hence our reluctance to continue. A later check found that the land was in fact a Crown Lands road easement which we could have entered.

After returning to the cars a brief inspection was made of the site of the former bridge over

The site of Gunbower Creek Passing Loop, 19 December 2012. *Photo: Mike McCarthy*

Gunbower Creek. Some nails, probably from the bridge, and what may have been the remnant of a sleeper were found. The remainder of the afternoon was spent inspecting road crossing points and the site of Torrumbarry Weir Siding. No clear evidence of the formation was found at any of these locations although we were able to inspect the other end of the road easement we had walked to earlier. We could clearly see the gate we had reached in the distance and a superficial visual check along the alignment indicated nothing of obvious interest.

The expedition then retired to Echuca for sustenance, rehydration/pontification (the two seemed to go together), and rest.

The following day, suitably refreshed and refuelled, our focus turned to the Torrumbarry Weir works area and commenced with an inspection of the very well fitted out Visitors Centre. Along the way we were able to positively identify the location of a photograph in our possession. Interestingly the most compelling point confirming the location was the presence of two trees with distinctive shapes in both the c1922 photograph and the same scene 90 years later. Amazing!

In the Visitors Centre there are a number of very interesting photographs depicting construction of the weir and the lock including several showing tramway scenes.

With the aid of aerial photographs we determined the location of the construction camp and with five of us on the job the expedition set out on a reasonably systematic search (aided by a healthy and interesting dose of anarchy) for formations. After a wild goose chase along what turned out to be a low levee bank (would have made a perfect 2ft gauge tramway formation!), we came across the "real McCoy" 930 m south east of the Visitors Centre. Although nothing was found on the ground the tramway from Torrumbarry Weir Siding had clearly followed present day Torrumbarry Weir Road into the works area but at this particular point a branch line had been laid to the south east. It was known that two sand tramways were laid from the works and it is most likely this was one of them. Faint outlines of sleeper impressions could be seen along the way. The formation was followed for 400 m through the scrub when time constraints forced a return to the cars.

A third visit by the Old Fogeys is planned for next year when this formation will be followed and mapped hopefully in its entirety. More research over the next few months will, with a bit of luck, provide a hint as to the direction of the second line.

John Dennis, Peter Evans, Colin Harvey, Chris Wurr and Mike McCarthy (Dec 2012)

Grant's Irontone Tramway revisited, Koolka, SA (LR 125) 1067mm gauge

Light Railways issue 125 of July 1994 contains the late Arnold Lockyer's brief history of a tramway which ran from Koolka on the Peterborough to Cockburn line of the South Australian Railways.

Arnold's history is brief because the life of the tramway itself was brief – about five years.

For readers with no access to that issue of LR (it is still available from the online shop) I recount the details, that in "about" 1892 the Koolka & Mingary United Ironstone Flux Company Ltd built a 3ft 6in gauge tramway junctioning from the Peterborough – Cockburn line at 278¼ miles ex Adelaide. The location subsequently became known as Koolka. The line ran to Grant's and Cutana Quarries for the purpose of extracting ironstone. This was railed to Broken Hill and used as flux in the smelting of silver, lead and zinc.

Varying tonnages of ore were railed out from 1892 to 1897, when it appears from S.A.R. Annual Reports, that the line ceased to operate. In 1897 smelting of Broken Hill ore was transferred to Port Pirie, apparently using iron ore obtained from Iron Knob on the opposite side of Spencer's Gulf.

In the 1897-98 Annual Report, it was listed that the signals had been removed at Koolka and thus the name disappeared from the S.A.R. map. S.A.R. records show that their 2-6-0 loco W27 was hired to the Mingary Flux Company (from opening of the line?) until February 1894, and from 1st February 1894, 2-6-0 loco X50 was used over the line under "S.A.R. control". This seems to indicate that S.A.R. crews ran the trains on the line after 1 February 1894.

In 1981, Arnold and another member of the society inspected the line, which was understood to have been lifted during 1897-98. Whilst the schematic diagram of the line that accompanies the article is essentially correct, there is no description of observations made by these two gents.

On 7 November 2012, Victorian members Chris Wurr and Trevor Penn inspected the line to the terminus, using 4WD and walking. Permission was readily given by the property owner. When asked if he knew about the railway, he said he did, because his father (the previous owner?) had pointed it out to him when he was a young lad.

Detailed maps of any smaller scale than 1:250,000 do not exist of the area, so a compilation of Google Earth images was assembled and waypoints of key features ascertained before the trip commenced.

The ruler feature on Google Earth indicates a total mileage from Koolka to the terminus quarry to be 13.98 km (8 miles 55 chains).

At Koolka there is no sign whatsoever of the siding or the tramway. If there were ever any remnants of both prior to the conversion of the railway to standard gauge in early 1970 and the vast improvements to the road which is now called the Barrier Highway, both works have completely removed all trace.

Once clear of the Koolka siding in a direction facing Up main line trains, the line curved southwards, crossed the Peterborough – Broken Hill Road and ran for six miles on long tangents with only three slight curves. This section of the line was not inspected on the day for several reasons. It mostly runs through a different property and we had not sought permission to enter. Also there are no gates in the fence through which to access the paddock. From Google Earth there were no discernible features worthy of investigation and lastly there are no vehicle tracks in the vicinity of the roadbed and with the prospect of some 19 kilometres return -- the distinct possibility of staking a tyre was not considered a worthwhile risk!

Undoubtedly the most interesting feature of the line is the turning triangle at 8.75 km (5 miles 35 chains).

Field Reports

Curiously the July 1994 *Light Railways* article makes no mention of this remarkable feature. It sits astride a broad flattish hill and from this point back to Koolka the line falls or is relatively flat all the way.

Thus it would appear that the triangle was used as a location to build the train up to a maximum load for the run in to Koolka. The other reason for the triangle is to turn the loco and wagons on the outbound journey, as neither quarry had run around facilities.

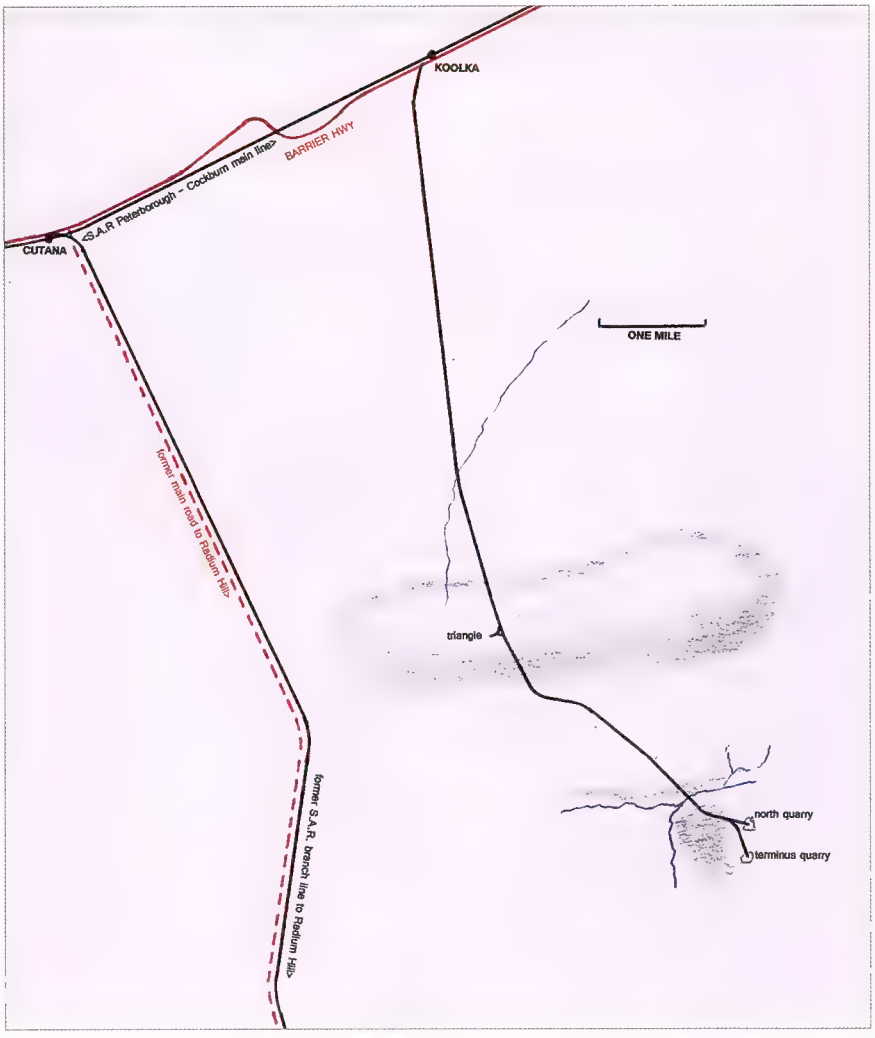
The end of the triangle apex was difficult to determine precisely, but was at least 60m in length and the two legs were on curves calculated to be of 120m radius. The apex was also quite probably used for loading wagons from the nearby source of ironstone.

Continuing southwards, the line was at first carried on an embankment of about 1.8m in height at its highest, which a watercourse has breached at one point, then cresting the hill, it began falling firstly through a very shallow cutting of about 600mm depth, then onto a long tangent embankment of 2.5 to 3m in height, eventually regaining ground level. At the foot of the gradient, the line once crossed a sandy dry creek bed. This creek has no doubt flooded and scoured the area out numerous times since the line's operation, and there is no sign at all of a low bridge having been employed. However, on the far side of the watercourse is the embankment for the line. and the end of it at the watercourse has been stoned up.

From this point the roadbed rises very gently on a low embankment, then in a very shallow cutting to the point where the north quarry* siding points were located. The line into this quarry was tangential, with the "main" line curving to the right as it climbed a low rise. At this point, both the quarry siding and the main line passed through separate shallow cuttings side by side. The quarry siding then runs down a ramped cutting onto the floor of the quarry and is about 230m long from the points.

The siding cutting opens out into an irregular-shaped excavation of about 2.5m in depth, maybe 15m wide and perhaps 9m to the back wall.

** as named on the schematic map accompanying Arnold Lockyer's 1994 article.*



The embankment leading to the north quarry face, 7 November 2012. *Photo: Chris Wurr*

The main line continued on a very slight rise and curved to the right, to then run tangentially to the terminus quarry. As with the north quarry, the line ran down a ramped cutting onto the floor of the pit. This last quarry was of roughly the same size as the north quarry – maybe a little wider at 18 to 21m.

Except where indicated above, at cuttings and embankments, the entire line was laid on the natural ground surface. The only piece of rail found was a 4 inch section of 40 lb T rail, which we presume indicates that the line was laid in its entirety thus. This accords with the contemporary standard of the Peterborough to Cockburn line. This little piece of rail was found very near southern points of the triangle and no doubt was a filler piece for the pointwork.

Evidence shows that the entire line was ballasted in ironstone clumps about fist sized. Numerous dog spikes were found, along with the square heads of fishplate bolts. These had been snapped off and suggest that the old tried and true method of pinging them off with a sledge hammer on a freezing cold, frosty morning was employed when dismantling the line.

The use of ironstone (ferric oxide) as flux in the smelting process at Broken Hill is interesting. Calcium Carbonate mined and railed from the Tarrawingee quarries (see *Light Railways* 33, Spring 1970) was also used as flux in the smelters at Broken Hill. Two vastly different mineral materials used as flux for smelting the

Koolka Tramway terminus with the quarry cutting on far side, 7 November 2012. Photo: Chris Wurr

output of Broken Hill mines could probably not be imagined.

The answer lies in the type of precious metals required to be extracted. Silver, lead and zinc comprised the majority of metals sought at Broken Hill. Calcium Carbonate flux is ideal for extracting zinc and lead from the ore body, but ironstone flux works better for removing lead.

From south of the triangle hill to the end of the line, ironstone abounds, either outcropping or simply lying on the surface. At face value, it would appear that the full length of the line from Koolka to the quarries, could very well have been ballasted with ironstone picked up off the ground surface south of the triangle hill.

The layout of the SAR siding at Koolka is unknown, but assuming a run-around loop with main line points at each end, the most logical method of operation of the line would possibly be that the locomotive hauled a rake of empty wagons from Koolka to the triangle, turning both loco and wagons. Perhaps leaving some empties on the apex for loading, it propelled the rest of the trucks to one or both of the quarries. On the return, the loco hauled the loadeds straight to Koolka, perhaps picking up loads off the triangle apex. The run with a full load from the triangle to Koolka would have been an easy journey due the favourable downhill drop off the hill and flat ground to the S.A.R.

The financial health of the Koolka & Mingary United Ironstone Flux Company could not have been great. The cost of construction of the 8½ mile line would appear likely to outweigh the profit made from a mere five years of ore harvesting and mining. Stockpiling the material would have been labour-intensive. There are no signs at all of the workers having lived at or near the ironstone deposits in this very harsh environment. And one doubts if there was ever anything in the way of a settlement at Koolka. Perhaps they "commuted" daily from nearby Mingary?

With the shift of smelting from Broken Hill to Port Pirie in 1897, the ironstone found in this area was no longer required. However this was not the end of mineral exploration in the immediate area. Between 1915 and 1917 the search for copper saw the location busy with mining activity once again. Of course by this time, the tramway had been dismantled, so any ore extracted would have been moved out by horse-drawn wagon or motor lorry. The resurgence came to very little though. Evidence of this later activity can be easily found adjacent to the tramway, where several outcrops of ironstone have been exploited in the search for copper. Indeed the ironstone removed during such searches has been stockpiled ready for removal at some sites. The outcrops were driven into horizontally and opened out, and in the process, much ironstone was removed. Mining records from this period indicate several ventures in the area and some of these names still appear on a 1:250,000 map, including Cutana No.1 Mine, Cutana No.2 Mine, North Western Mine (Forty Chain workings), and a mining record also indicates a Luxemburg Mine.

Our thanks go to Andy Treloar for permission to enter his property and for his interest, and also to neighbour Will Evans for his support and interest too.

My special thanks must go to Keith Findlay, Geologist (and Train Driver) for the vast amount of work he put in researching and interpreting the mineralogy of this area.

Chris Wurr

Richmond Vale Railway, Hexham, NSW
1435mm

With plans for extending double track back to Greta, and the proposed establishment of a large coal train holding yard at Hexham, a recent excursion was made to photograph the remaining signalling and infrastructure of the former RVR operations. Thanks (or no thanks) to vandals who had broken in, it was possible to obtain internal shots of Neath signalbox, which was the first time I have seen inside since 1994. At Hexham virtually all track has been removed, except for a sole bit of rail that was left up the Stockrington end of the yard.

Most of the structures still exist, all in advanced states of decay. The loco shed however has been wiped out and it took quite a bit of ferreting in the bush to locate its base and the covered over pits, one of which had a hole big enough for one of our braver group members to stick his hand through for photos.

Heat, and fear of snakes and getting in trouble prevented us from venturing towards the old washery and balloon loop loader, but I believe these have also been wiped out.

Standing there, you start thinking of the massive changes that have taken place to the location in 25 years.

Brad Peadon

The remains of the bathhouse and control cabin at Hexham, located not far from the now-demolished engine shed, 7 October 2012. Photo: Brad Peadon

News items should be sent to heritagetourist@lrrsa.org.au Digital photographs for possible inclusion should be sent direct to Bruce Belbin at editor@lrrsa.org.au including the name of the location, the name of the photographer and the date of the photograph.

QUEENSLAND

BALLY HOOLEY STEAM RAILWAY
Port Douglas

610mm gauge

Alf Atkin reports that on Sunday 9 September he had the pleasure to ride on the Bally Hooley Steam Railway at Port Douglas; the engine for the day was *BUNDY*, a Bundaberg Fowler 0-6-2TT (BF2 of 1952). This service was well patronised with passengers detraining at all three of the intermediate stations. Many people use the train to travel into Port Douglas proper for the very popular markets as it is easier than trying to find parking. This is very understandable when you consider the reasonable cost of the tickets.

Halfway along the line is the railway depot. Stored there were the other Bundaberg Fowler steam locomotive, *SPEEDY* (BF6 of 1952), and the line's diesel loco, *MOWBRAY* (Bagulay/RMP 3378 of 1954). Also in the compound were spare passenger carriages. On arrival at the other terminus for the line, St Crispins, *BUNDY* was detached before running forwards, then once the points were set, it ran onto the turntable to be turned for the return trip. Once this was done the run around manoeuvre was completed. Alf was lucky enough to be invited by the driver to accompany him as this was being done. The train then retraced its steps, stopping at the three intermediate stations once again. Arrival back at Marina was at 13.50.

Alf Atkin 9/12

ACLAND COAL MINING MUSEUM
New Acland Coal Pty Ltd

610mm gauge

Previously approved plans for the open cut coal mine in the Acland area of the Darling Downs involved the destruction of Acland township and the removal of significant items from the closed Acland Coal Mine Museum to a proposed Acland heritage precinct at Jondaryan Woolshed. In November 2012, approval was given to changes to the original plan which will see the township of Acland left untouched and the preservation of the museum site at the old colliery. Two 4wDM underground locomotives, Jenbach 1137 of 1952 and Bundaberg Foundry 16 of 1955, are reportedly located under cover on site at Acland although some vandalism is believed to have occurred during the period of abandonment of the township.

New Acland Coal Pty Ltd 11/12; John Browning

AUSTRALIAN SUGAR CANE RAILWAY
North Bundaberg
Bundaberg Steam Tramway Preservation Society

610mm gauge

On the evening of 24 November, a dinner was hosted by the Australian Sugar Cane Railway at the North Bundaberg Botanical Gardens to celebrate the Diamond Jubilee of the building of the first Bundaberg Fowler locomotives.

Special trains headed by John Fowler 0-6-2T *INVICTA* (11277 of 1907) ran for the benefit of guests, and the invited speaker was David Mewes, Curator of The Workshops Rail Museum at Ipswich.

A special presentation of a commemorative

A special presentation of a commemorative engraved plaque in builder's plate style was made to Wendy Driver, the President of ASCR, by Maria McMahon on behalf of Bundaberg Walkers Ltd, successors to the original builders. Photo: John Browning

Bally Hooley Steam Railway 0-6-2TT BUNDY *turns on the former QR Kuranda 40ft turntable at St Crispins on Sunday 2 December 2012. Photo: Mike McCarthy*

An ore truck, that once saw service at the Nil Desperandum Mine, is preserved near the railway station at Forsayth. Photo: Alf Atkin

engraved plaque in builder's plate style was presented to Wendy Driver, the President of ASCR, by Maria McMahon on behalf of Bundaberg Walkers Ltd, successors to the original builders.
Construction of the track extensions has been completed but a number of regulatory formalities have to be carried out before the extended loop can be brought into public use.
John Browning 11/12

FORSAYTH
610mm and 1067mm gauge
Alf Atkin reports that he photographed an underground ore truck at Forsayth on September 13. The plaque in front of the truck says that it was used at the Nil Desperandum Mine which was located near Mount Garnet. This truck along with a few other mining and other items are located in a park adjacent to Forsayth Railway Station. The other item of railway interest in the park is DL2, a 2-6-0 diesel locomotive that was used on the Etheridge Railway of QR. This line terminated at Forsayth. It appears that all four members of this class are still in existence.
Alf Atkin 9/12

THE WORKSHOPS RAIL MUSEUM
Ipswich
610mm and 1067mm gauge
The Workshops Rail Museum in Ipswich has won the Tourist Attraction category for the second year in a row at the prestigious Queensland Tourism Awards. The Museum was also named a finalist in the Heritage & Cultural Tourism category. Director of The Workshops Rail Museum, Andrew Moritz, said the award capped off an amazing decade for the Ipswich attraction.
The Workshops Rail Museum opened to the public in 2002 as part of the Queensland Museum Network and is a wholly interactive experience exploring the story of rail in Queensland through exhibitions, tours, demonstrations and steam train journeys. The Museum will now progress to represent Queensland in the Tourist Attraction category at the Australian Tourism Awards to be held in Hobart in February 2013. The Workshops Rail Museum, celebrating ten years this year, is part of the Queensland Museum Network celebrating 150 years in 2012.
Meanwhile Andrew Moritz reports that firebugs have struck again at the Workshops Railway Museum on November 9. The blaze broke out around one o'clock in the morning in an old building. Crews from Brisbane were called in to help put out the flames. A deliberately lit fire occurred at the same location last September, in buildings adjacent to the Museum that were once part of the North Ipswich Railyards which were sold off approximately eight years ago by Queensland Rail. Ipswich Councillor Paul Tully said the perpetrators should face the full force of the law.
The scene was guarded by police and fire investigators arrived at the site in the morning. The Museum and its collections are safe and the Museum was open for business the next day as they have their own power.
Grant Price, Andrew Moritz, Director of the Workshops Railway Museum. 11/12

BUDERIM
Buderim-Palmwoods Heritage Tramway Inc
610mm gauge
A piece of Buderim's transport history is being restored for future generations. The Buderim-Palmwoods Heritage Tramway group has restored a Krauss 0-6-2T locomotive (6854 of 1914) that ran from Palmwoods to Buderim in the early 1900s. The dedicated team of volunteers worked on the locomotive every Wednesday since 2004, sand blasting, chipping and chiselling years of neglect off the engine. The then 762mm gauge locomotive was purchased by the Maroochy Shire Council after they received a loan of £950 from the State Government, and hasn't moved since 1965 when it last ran hauling sugar cane for Bingera Mill in Bundaberg.
Helene Cronin, President of Buderim-Palmwoods Heritage Tramway believes the locomotive was part of the very first tourist venture created on the Sunshine Coast.
"The locomotive made its first trip to Buderim in 1914 ... with workers carrying the rails and laying them as the train went up the hill. It ran twice a day for transport needs at 8am and 1pm when it would take fruit and vegetables to market, but they needed to make more money so they decided to run railway excursions. They would put ads in the newspapers in Brisbane to advertise excursions that would come up from Brisbane and holiday makers would spend the weekend in Buderim. There was talk about building a track to Alexandra Headlands but when transport changed to trucks and cars, they then took produce to market and the train began to lose money," Cronin explained.
The local community has pushed the cause, matching the State Government's $8000 worth of funding for restoration dollar for dollar. The Sunshine Coast Council has prepared a design report to support the group's desire to secure future funding which aims to raise nearly $300,000 to have the locomotive placed on display in the main street of Buderim by 2014 to celebrate its 100th birthday.
ABC Radio report, Jessica Hinchliffe & John Stokes 12/12

FRIENDS OF ARCHER PARK STATION AND STEAM TRAM MUSEUM INC.
Rockhampton
1067mm gauge
The tram will cease running after Sunday, 25 November for its annual inspection and service, as will the Billard diesel. If all goes well, the tram will start operating again from 17 February 2013.
Archer Park has welcomed a few new volunteers in recent months, and it is always rewarding when someone gives a good rap after they have visited. This happened twice recently on the www.tripadviser.com.au website. Both reviewers were full of praise for the Museum and for one of its volunteers. It lifts morale to receive feedback like this.
Tram Tracks 12/12

MOUNT MORGAN RAIL MUSEUM
Mount Morgan
1067mm gauge
Mount Morgan Rail Museum's final open day of the year wasn't as damp as at Archer Park the previous week, but the visitor results were also disappointing. The editor of *Tram Tracks* attended with a small display of models supporting rail heritage preservation and enjoyed the opportunity to talk with their museum volunteers. Perhaps because there were so few visitors, the kid's activities table had consistent use with the help of parents or volunteers.
Tram Tracks 12/12

On the evening of 24 November, a dinner was hosted by the Australian Sugar Cane Railway at the North Bundaberg Botanical Gardens to celebrate the Diamond Jubilee of the building of the first Bundaberg Fowler locomotives. Special trains headed by John Fowler 0-6-2T INVICTA *(11277 of 1907) ran for the benefit of guests.* *Photo: John Browning*

Heritage & Tourist NEWS

NEW SOUTH WALES

LAKE MACQUARIE LIGHT RAIL
Toronto

610mm gauge

The Australian visit of rail enthusiast and regular *Light Railways* contributor Richard Horne during November prompted the writer of this report to arrange a visit with Richard to the Lake Macquarie Light Railway at Toronto on Sunday 18 November through Grahame Swanson.

We arrived to a scene of great activity, with a small army of volunteers supervising some 300 visitors from a local community group enjoying a grand outing with train rides, picnic facilities, a piped band and similar attractions.

Considerable progress has been made with the railway during the past year and the day provided the opportunity for the LMLR's signalling officer to demonstrate progress of the new signalling project with the signalling and interlocking features that have recently been installed in the new signal cabin. Two trains were operating from Nomad Station, each making two circuits of the main line before pulling up at the station to disembark its passengers and reload. Safe working was the order of the day. As soon as one train had completed its journey, the staff was exchanged, points and signals reset, stationmaster's whistle blown, guard's green flag waved, and the next train departed the station. Our signalman host proudly demonstrated the immaculately restored 16-lever frame controlling the starting signals, points and home signals (though the latters' masts were awaiting erection).

During the morning ex-North Eton Mill 0-6-2T 7 (Perry Eng. 6634.51.1 of 1951) and ex-Fairymead Mill 0-4-2T 1 (Baldwin LW 10533 of 1889) were the operating locomotives, while the more recently acquired and restored ex-Innisfail Tramway 0-6-0DM DL 12 (RMP/Baguley 3390 of 1954) – later South Johnstone Mill No. 10 – was proudly displayed on the main road to the depot. Finished in a deep blue and red livery, this loco hauled the main passenger train during the afternoon.

At the main depot the ongoing projects of the active restoration program were examined. The reassembly of ex-North Eton Mill 0-6-2T No. 6 (Perry Eng. 2382.41.1 of 1941) in readiness for a return to service was at an advanced stage, while the ex-Goondah-Burrinjuck Railway 0-4-0WT *JACK* (Krauss 6063 of 1908) was also being reassembled on the adjacent road. Restoration work on Bruce Belbin's former Mourilyan Mill 0-4-2T No.7 (Perry Eng 2714.51.1 of 1951) has been set aside for the present and it is stored under a tarpaulin beside the main shed.

Thanks are expressed to Grahame Swanson for the invitation to attend this event and the kind hospitality provided by the volunteers on the day.

Bob McKillop 12/12

VICTORIA

ALEXANDRA TIMBER TRAMWAY
Alexandra Timber Tramway & Museum Inc

610mm gauge

The railway was given a large quantity of dog spikes and members travelled to East Malvern to sort and obtain them. A total of 4,000 dog spikes weighing about 10 tons were obtained.

The Alexandra Market is now eight years old and is held at the station during the better months. Trains run each day of the market.

The ATT has purchased ex-Victoria Mill Malcolm Moore 0-4-0DH *Moore* (DH-112-GT-1 of 1956) from Chris Hart in Ingham, Queensland, and it arrived in Alexandra on 17 December. It was obtained with assistance from the National Cultural Heritage Account under the Protection of Movable Cultural Heritage Act 1986. This locomotive is the only purpose-built cane loco built by Malcolm Moore and will be a valuable addition to the museum collection.

The Electric Telegraph Issue 15, 9/12, Peter Evans 11/12, ATTM 12/12; Department of Regional Australia, Local Government, Arts and Sport Annual Report 2011-12

POWERWORKS ENERGY TECHNOLOGY AND VISITOR CENTRE
Morwell

900mm gauge

Apparently without any local consultation, Hitachi Bo-Bo WE locomotive 125 (102 of 1967), which had been on open display for many years at the visitors, centre, was cut in two and removed for scrap in late November. Two brown coal bogie hopper wagons displayed with the locomotive, numbered 701 and 711, were also scrapped.

What made this act even less excusable is that at least two local historical groups, the Yallourn

The delightful 0-4-2T built by the Baldwin Locomotive Works in 1889 (B/N 10533) for the Fairymead Sugar Mill passes the new signal box at the Lake Macquarie Light Railway as it approaches Nomad station on 18 November 2012. *Photo: Bob McKillop*

Two Gemco battery-electric locomotives power a train at the Newington Armoury Railway at Sydney Olympic Park. Trains operate each Sunday, departing at 1030 and 1200 hrs. The tour last about 70 minutes and stops are made at various locations on the way to view aspects of weapons storage and storage buildings.. *Photo: Kevin Waid*

North and District Historical Society and the Friends of No.21 Dredger, were interested in becoming custodians of these historic artefacts that had been set aside for preservation by the State Electricity Commission of Victoria in 1994. The Historical Society had written to Powerworks requesting the items after it had learned that the centre was to close in October but received no official response. Powerworks ceased operations from 21 December 2012.

125 (Hitachi 102 9/1967) was the second last of 42 900mm gauge electric locomotives operated by the SECV. Six different manufacturers provided electric locomotives for use in the Latrobe valley coalfields from 1927, with Hitachi providing the last two in 1967. Initially the locomotives hauled coal from the Yallourn open cut mine to the power stations, until this line was replaced with a conveyor belt in 1985. The rail operations were then confined to the Interconnecting Railway between the mine and the briquette plant at Morwell. Dieselisation of the system took place in 1993, with the line closing in October 2000.

The last remaining locomotive is 37, manufactured by Thomson, Kelly & Lewis and assembled by SECV in October 1942, which is currently at the ARHS Vic. North Williamstown railway museum.

Dave Malady 11/12; John Cleverdon 12/12, *Latrobe Valley Express* 10/12/12, Scott Gould from John Cleverdon's website

PUFFING BILLY RAILWAY

Belgrave

762mm gauge

The Board advertised for a new CEO for the Railway during November to replace retiring CEO, Eamonn Seddon. There were 95 applications and a selection panel of Ray Leivers, John Brady, Nadine Hutchins and Bob Cochrane conducted six formal interviews. The Board agreed that John Robinson be appointed to the position. Many will know of John's extensive experience as an accountant and in senior management positions including as a CEO. He has also held positions of Chairman of the Emerald Tourist Railway Board (and is currently Deputy Chairman) and President of the Puffing Billy Preservation Society. He will not remain on the Board while he is CEO. Robinson is currently Acting CEO.

On Sunday 18 November, 2012 the Society commemorated the Fielder family with a plaque unveiling ceremony at Fielder Station. The Fielder family, through Brian Fielder (now deceased), helped finance the construction of the replica 'Mallee Shed' waiting shelter during the mid 1990s. This shelter is located at Fielder between Cockatoo and Gembrook stations. The plaque was unveiled during an informal ceremony, when the up train from Gembrook stopped at Fielder Station at 2.55pm, enabling passengers to view the ceremony from the comfort of the train carriages.

Fielder Station originally opened on 24 October 1904, but remained unnamed until 5 February 1927 when it was named after local landowners and residents by the name of Fielder. It was closed with the line in 1954 and gradually fell into disrepair with the Mallee Shed disappearing some time later. The station was reopened with the reopening of the Lakeside to Gembrook section of the line on 18 October 1998.

Ray Leivers, Chairman ETRB, 11/12, Kine Haugland, Marketing assistant, Puffing Billy Railway, 11/12

The sad remains of 900mm gauge Hitachi Bo-Bo WE locomotive 125 (102 of 1967), in the scrap yard. *Photo: Dave Malady*

The ex-Victoria Mill Malcolm Moore 0-4-0DH locomotive Moore *(DH-112-GT-1 of 1956) arrives at Alexandra on 17 December 2012.* *Photo: Gerry Laws*

SOUTH AUSTRALIA

BON ACCORD MINE MUSEUM

Burra, SA

National Trust of South Australia

The Bon Accord Copper Mine commenced operations in 1846 and ceased in 1863 with many years of inactivity during this period as no payable copper deposits were found. The Museum is located on the site of the Bon Accord Mine, and incorporates the original mine office and workshop. The Museum displays mining relics, ore samples, the office pay table from the Monster (Burra Burra) Mine, plus information, photographs and memorabilia of the Burra copper mining area, 1845-1877. There are models of a horse whim, and of the Monster Mine and the above ground structures which existed there in 1858. The Blacksmith Shop is fully operational, with a forge of typical Cornish design and original elephant hide bellows. Housed in the pump shed is a shaft of the Bon Accord mine. Outside are a horse whim core, a waterwheel hub and other pieces of mining equipment. Of railway interest is the skip in the yard outside. The Museum is open Thursdays to Mondays from 2pm to 4pm with an escorted tour. Entry fees apply. Burra is an historic town and a pleasant day trip from Adelaide, though an overnight stay can be recommended.

Brian Webber

Heritage & Tourist NEWS

WESTERN AUSTRALIA

CARNARVON HERITAGE GROUP

Carnarvon

1067 mm gauge

Work continues on the new Interpretive Centre at the base of the Carnarvon One Mile Jetty. The Centre will provide museum collection and work areas, exhibition spaces, a theatrette, restaurant, retail sales areas, public rest rooms and office spaces. The railway track will be slightly realigned so the Coffee Pot train can pull up to the platform verandah of the building. The group is expecting this development to be another step forward in the Carnarvon Heritage Precinct becoming self-sufficient into the future. The Kimberley Steam Train is still situated as a static display in the Railway Museum.

ATHRA 10/12

BENNETT BROOK RAILWAY

Whiteman Park

610mm gauge

In his chairman's message Jamie Wallis states: "The railway has had another very busy year with all departments hard at work. There is always something happening and a lot has been achieved by the mid-week crews. They are steadily working their way through refurbishing the coaches, bringing them back to good sound condition. One cannot say that they don't need it as they have all been in service for thirty odd years with only minor maintenance and repairs. Now the overhauled coaches are a credit to BBR. The new sheds, are proving to be a good investment. A lot of the stock is now under cover out of the weather. This should ease the maintenance burden. The dual gauge line is not yet being used to maximum effect but with all that has been going on, it won't be long. The hanger has been used to maximum effect. The floor still needs leveling and surfacing but is being put to good use as is.

Locomotives have had a busy year. The Gemco is back in traffic with a rebuilt main transmission and the Planet has had an in-frame engine overhaul. Judging by what was found on the strip down, it was sorely needed. The steamers are still a problem as the annual inspection showed up a problem that was unexpected. The Perry 0-4-2T *Betty Thompson* is still the pride of the fleet, and is now in good order after a spark arrester problem was identified and fixed. All locos have had the spark arresters checked and replaced as necessary. Some of the diesel spark arresters were aged and replaced with new technology units.

This year the railway has been rather stretched for train crews. New people have been coming through the Safe Working courses but there is a need for more drivers, both for the weekends and for the mid-week

The new platform at Mussel Pool is nearly finished. Just the lights and some surfacing remains to be done. It looks magnificent and is an asset to the railway and the Park. Also, Kangaroo Flats platform is operational. The siding is a work in progress and when all is finished it will be another major improvement to the railway. The next one is Zamia and then the passing loops for both island platforms. The new signal box at Mussel Pool is a definite improvement on the old one. All the North movements are now managed by the signal box and the additional signals make for a safer environment and an easier task for the guards and drivers.

The steam locomotive water tank at Whiteman Village Junction station was commissioned this year. The supply of rainwater for the steamers will be a big help in keeping boilers trouble free and it generates a lot of interest from the public when locos are watering. Hopefully, the water column will be commissioned this year - all the piping is in place – and it will enable locomotives to be watered from 'one road' as well as from the tank on 'three road'."

Also, in other news from the railway, the Golden Mile's Great Boulder Mine obtained Planet 3996 of 1962 (built by F C Hibberd, with a six-cylinder Dorman engine and chain drive) for its ore trains. When the Great Boulder rail operations ceased in the early 1970s, the loco joined other Planet engines at the Lake View & Star mine. By 1975 this operation had ceased. The Great Boulder loco was acquired by the Kalgoorlie Boulder Loop Line Preservation Group and was regauged to 3ft 6in in 1980, but it never entered regular service and has since been privately acquired, re-located to the Bennett Brook Railway at

A skip on display in the yard outside the Bon Accord Mine Museum at Burra, South Australia. *Photo: Brian Webber*

On 18 November 2012, the Bennett Brook Railway's ex Great Boulder Mine (Kalgoorlie) Planet loco had its first full day of operation on passenger services, albeit in push-pull mode with ex Public Works Department PW27 WYNDHAM (Gemco built 1964) at the other end. The train sits at Whiteman Village Junction station (featuring the former Claisebrook station building). *Photo: Matthew Whiteford*

Whiteman Park and returned to 2ft gauge. On Sunday 19 November 2012 it entered service on passenger duties.

The old platform at Kangaroo Flats is being remodeled by a Work for the Dole crew. The length of this platform has been halved and a dock platform end is being installed. The new island platform is being built to high standards. It will have a shelter, with a display wall with a 2.4 by 1.2 metre mosaic. It will have seats and a room for signals and staff purposes.

The old platform will remain as an old style platform, mostly for visual purposes. The idea is that on enthusiast days a goods train could leave an R wagon there and then an old truck would back up to the dock and transfer the freight from the rail wagon to road.

Work on a major overhaul of AQB 2970, the concertina set brakevan, is well advanced. These carriages have been in service since September 1987 and have given sterling service since then.

To enable Bennett Brook Railway to replace cast iron brake shoes with the newer composite, the railway is regauging two new bogies. When completed these bogies will be exchanged with an existing service wagon. The removed bogies will then be overhauled and fitted with the new composite shoes, and another bogie exchange will take place. The advantage of having a fleet of high capacity passenger carrying vehicles is that it enables the railway to deal with the peak loads that happen from time to time.

The Ashley Day event ran like a Swiss watch. There were no problems and customers obviously were very happy with the services on the day. The Controller, Neil Remic, was swamped for most of the day with kids wanting photographs with him. Cash sales were down, confirming all financial reports that the public is now more cash conscious. However, both presales and credit purchases were up by almost the same amount, resulting in a 3.6% profit increase since the last Ashley Day in May.

Barry McClean is stepping down from his position of Events Co-ordinator and Ken Watson is taking over. To avoid overloading on Ashley Day, Ken suggests that it be made a pre-purchased ticket event only, in much the same way that Puffing Billy's 'Ride the rails with Thomas' is a pre-purchased ticket event. This appears to be the direction that many preserved railways are taking for their big ticket events.

David Whiteford, Lindsay Watson, Barry McClean, Bennett Brook Railway Newsletter, 12/12 and 10/12

PEMBERTON

1067mm gauge

Former Pemberton Mill 2-6-0 locomotive SSM7 (James Martin 117 of 1895) has been repainted and cleaned up and now looking good in preservation at Pemberton. This locomotive, ex-WAGR G53, is the last remaining early G class.

Jeff Austin 10/12

ROTTNEST ISLAND AUTHORITY

Rottnest Island Railway

1067mm gauge

The Rottnest Island Authority has the remains of two four-wheel wagons used on the island's WW2 military railway. The wagons are possibly ex WAGR G446 (built England, 1894 and written off in 1943) and G2585 (Gloucester Railway Carriage & Wagon Co., 1895, and also written off 1943). Both were originally classified LW, and were reclassified G in 1900. The late Bob Taylor had noted G446 and 2585 on the island in 1966. Ian Crellin, in 1967, noted about 10 four-wheel wagons including low sided and flat wagons with very low hinged sides, the former possibly being the G type (see LR 46). A WAGR file held by the State Records Office of WA contains correspondence between the WAGR and the military on the acquisition of two G class wagons around the time of the above write-offs, but the numbers of the wagons supplied were not noted. The RIA hopes to do some restoration and have them displayed on rails with interpretive information. There are presently no wheels with the wagons and the Authority is trying to source some.

David Whiteford & Jeff Austin. ?/12

Seen on 1 October 2012, former Pemberton Mill locomotive SSM7 has been repainted and cleaned up and is now looking good in preservation at Pemberton. This locomotive was originally WAGR G53 and is now the earliest G class loco in existence. *Photo Jeff Austin*

OVERSEAS

WAITAKERE TRAMLINE

Waitakere, New Zealand

610mm gauge

West Auckland's second operational narrow gauge bush tramway (Waitakere) is now open for business after an horrendous 12 months of setbacks, including falling trees and several washouts, one being major, leaving six metres of track suspended in midair, effectively closing the line. Whatever the cause, Sunday excursions had to be halted, and it was hoped it would only be for a couple of months but that proved to be very optimistic. In the end, the line was closed for a year. One good thing to come out of the repairs was improved views.

FRONZ Issue 117 12/12

ERRATA

Unfortunately, several errors found their way into the H&T pages of LR 227.

In the item on National Rail Museum, Port Adelaide, on page 38:

1. *PERONNE* did not take on "the guise of *Thomas*" during the July 2012 two-week 'Day out with Thomas' event. In fact, it did not even wear a face during the event.
2. The words "Clearly Thomas hasn't lost his charm" were those of the editor and not of Bob Sampson, who was credited with contributing the report.
3. At the beginning of the second paragraph of the report, several lines of text were missing. It should have read: "The West Torrens Railway Signal Telegraph and Aviation Museum, on Marion Road, Richmond, has been closed for over five years, and the NRM has been acquiring a large proportion of the contents. Several weeks of hard work... "

In the item on Shea-oak Log Museum, also on page 38:

1. Shea-Oak is misspelt in several places.
2. The museum is identified as being in the Clare Valley, but is in fact located in the adjacent Barossa Valley.
3. Richard Crookall was incorrectly credited with suppling this report.

Our sincere apologies to all concerned.

LRRSA EMAIL DISCUSSION GROUP

Have you joined the LRRSA's email discussion group yet?
See: **http://au.groups.yahoo.com/group/LRRSA/** and click on "Join This Group"!

Above: *Marian Mill's Eimco B-B DH* BOONGANNA *(L257 of 1990) crosses Cattle Creek as it brings a load of cane from the Beatrice Creek area across the Uruba bridge on the morning of 3 November 2012. This low-level bridge has a removable section but is still often damaged by wet season flooding. Photo: Hayden Quabba*

Below: *With the normal multi-unit out of action, Clyde 0-6-0DH locomotives* PLEYSTOWE *(64-321 of 1964) and* ST.HELENS *(61-234 of 1961) were double-heading on Farleigh Mill's Pioneer Line on 6 December 2012. Could the yellow tape on* ST.HELENS *be intended as seasonal decoration? Photo: Scott Jesser.*